



Services Tools Bundle OpenSolaris Installation Guide



Sun Microsystems, Inc.
4150 Network Circle
Santa Clara, CA 95054
U.S.A.

Part No: 820-7348
October 2009

Copyright 2009 Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, CA 95054 U.S.A. All rights reserved.

Sun Microsystems, Inc. has intellectual property rights relating to technology embodied in the product that is described in this document. In particular, and without limitation, these intellectual property rights may include one or more U.S. patents or pending patent applications in the U.S. and in other countries.

U.S. Government Rights – Commercial software. Government users are subject to the Sun Microsystems, Inc. standard license agreement and applicable provisions of the FAR and its supplements.

This distribution may include materials developed by third parties.

Parts of the product may be derived from Berkeley BSD systems, licensed from the University of California. UNIX is a registered trademark in the U.S. and other countries, exclusively licensed through X/Open Company, Ltd.

Sun, Sun Microsystems, the Sun logo, the Solaris logo, the Java Coffee Cup logo, docs.sun.com, Java, and Solaris are trademarks or registered trademarks of Sun Microsystems, Inc. or its subsidiaries in the U.S. and other countries. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. in the U.S. and other countries. Products bearing SPARC trademarks are based upon an architecture developed by Sun Microsystems, Inc.

The OPEN LOOK and Sun™ Graphical User Interface was developed by Sun Microsystems, Inc. for its users and licensees. Sun acknowledges the pioneering efforts of Xerox in researching and developing the concept of visual or graphical user interfaces for the computer industry. Sun holds a non-exclusive license from Xerox to the Xerox Graphical User Interface, which license also covers Sun's licensees who implement OPEN LOOK GUIs and otherwise comply with Sun's written license agreements.

Products covered by and information contained in this publication are controlled by U.S. Export Control laws and may be subject to the export or import laws in other countries. Nuclear, missile, chemical or biological weapons or nuclear maritime end uses or end users, whether direct or indirect, are strictly prohibited. Export or reexport to countries subject to U.S. embargo or to entities identified on U.S. export exclusion lists, including, but not limited to, the denied persons and specially designated nationals lists is strictly prohibited.

DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

Copyright 2009 Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, CA 95054 U.S.A. Tous droits réservés.

Sun Microsystems, Inc. détient les droits de propriété intellectuelle relatifs à la technologie incorporée dans le produit qui est décrit dans ce document. En particulier, et ce sans limitation, ces droits de propriété intellectuelle peuvent inclure un ou plusieurs brevets américains ou des applications de brevet en attente aux Etats-Unis et dans d'autres pays.

Cette distribution peut comprendre des composants développés par des tierces personnes.

Certains composants de ce produit peuvent être dérivées du logiciel Berkeley BSD, licenciés par l'Université de Californie. UNIX est une marque déposée aux Etats-Unis et dans d'autres pays; elle est licenciée exclusivement par X/Open Company, Ltd.

Sun, Sun Microsystems, le logo Sun, le logo Solaris, le logo Java Coffee Cup, docs.sun.com, Java et Solaris sont des marques de fabrique ou des marques déposées de Sun Microsystems, Inc., ou ses filiales, aux Etats-Unis et dans d'autres pays. Toutes les marques SPARC sont utilisées sous licence et sont des marques de fabrique ou des marques déposées de SPARC International, Inc. aux Etats-Unis et dans d'autres pays. Les produits portant les marques SPARC sont basés sur une architecture développée par Sun Microsystems, Inc.

L'interface d'utilisation graphique OPEN LOOK et Sun a été développée par Sun Microsystems, Inc. pour ses utilisateurs et licenciés. Sun reconnaît les efforts de pionniers de Xerox pour la recherche et le développement du concept des interfaces d'utilisation visuelle ou graphique pour l'industrie de l'informatique. Sun détient une licence non exclusive de Xerox sur l'interface d'utilisation graphique Xerox, cette licence couvrant également les licenciés de Sun qui mettent en place l'interface d'utilisation graphique OPEN LOOK et qui, en outre, se conforment aux licences écrites de Sun.

Les produits qui font l'objet de cette publication et les informations qu'il contient sont régis par la législation américaine en matière de contrôle des exportations et peuvent être soumis au droit d'autres pays dans le domaine des exportations et importations. Les utilisations finales, ou utilisateurs finaux, pour des armes nucléaires, des missiles, des armes chimiques ou biologiques ou pour le nucléaire maritime, directement ou indirectement, sont strictement interdites. Les exportations ou réexportations vers des pays sous embargo des Etats-Unis, ou vers des entités figurant sur les listes d'exclusion d'exportation américaines, y compris, mais de manière non exclusive, la liste de personnes qui font objet d'un ordre de ne pas participer, d'une façon directe ou indirecte, aux exportations des produits ou des services qui sont régis par la législation américaine en matière de contrôle des exportations et la liste de ressortissants spécifiquement désignés, sont rigoureusement interdites.

LA DOCUMENTATION EST FOURNIE "EN L'ETAT" ET TOUTES AUTRES CONDITIONS, DECLARATIONS ET GARANTIES EXPRESSES OU TACITES SONT FORMELLEMENT EXCLUES, DANS LA MESURE AUTORISEE PAR LA LOI APPLICABLE, Y COMPRIS NOTAMMENT TOUTE GARANTIE IMPLICITE RELATIVE A LA QUALITE MARCHANDE, A L'APTITUDE A UNE UTILISATION PARTICULIERE OU A L'ABSENCE DE CONTREFACON.

Contents

Preface	5
1 STB Installation on OpenSolaris	9
Prerequisites	9
2 Installing OpenSolaris	11
Setting Up the Depot Server on the localhost	11
▼ To setup the Depot server on the localhost	11
Setting Up the Depot Server on a Remote Host	14
▼ To set up the Depot server on a remote host	14

Preface

This book provides installation instructions for installing STB on an OpenSolaris system.

Who Should Use This Book

System Administrators who are installing STB on an OpenSolaris system.

How This Book Is Organized

- [Chapter 1, “STB Installation on OpenSolaris.”](#)
This chapter provides the prerequisites required to install STB on OpenSolaris.
- [Chapter 2, “Installing OpenSolaris.”](#)
This chapter provides the step-by-step instructions for installing OpenSolaris on the Depot Server of a localhost and a remote host.

Related Books

- [Services Tools Bundle FAQ](#)

Related Third-Party Web Site References

Third-party URLs are referenced in this document and provide additional, related information.

Note – Sun is not responsible for the availability of third-party web sites mentioned in this document. Sun does not endorse and is not responsible or liable for any content, advertising, products, or other materials that are available on or through such sites or resources. Sun will not be responsible or liable for any actual or alleged damage or loss caused or alleged to be caused by or in connection with use of or reliance on any such content, goods, or services that are available on or through such sites or resources.

Documentation, Support, and Training

The Sun web site provides information about the following additional resources:

- [Documentation](http://www.sun.com/documentation/) (<http://www.sun.com/documentation/>)
- [Support](http://www.sun.com/support/) (<http://www.sun.com/support/>)
- [Training](http://www.sun.com/training/) (<http://www.sun.com/training/>)

Sun Welcomes Your Comments

Sun is interested in improving its documentation and welcomes your comments and suggestions. To share your comments, go to <http://docs.sun.com> and click Feedback.

Typographic Conventions

The following table describes the typographic conventions that are used in this book.

TABLE P-1 Typographic Conventions

Typeface	Meaning	Example
AaBbCc123	The names of commands, files, and directories, and onscreen computer output	Edit your <code>.login</code> file. Use <code>ls -a</code> to list all files. <code>machine_name% you have mail.</code>
AaBbCc123	What you type, contrasted with onscreen computer output	<code>machine_name% su</code> Password:
<i>aabbcc123</i>	Placeholder: replace with a real name or value	The command to remove a file is <code>rm filename.</code>

TABLE P-1 Typographic Conventions (Continued)

Typeface	Meaning	Example
<i>AaBbCc123</i>	Book titles, new terms, and terms to be emphasized	Read Chapter 6 in the <i>User's Guide</i> . A <i>cache</i> is a copy that is stored locally. Do <i>not</i> save the file. Note: Some emphasized items appear bold online.

Shell Prompts in Command Examples

The following table shows the default UNIX® system prompt and superuser prompt for the C shell, Bourne shell, and Korn shell.

TABLE P-2 Shell Prompts

Shell	Prompt
C shell	machine_name%
C shell for superuser	machine_name#
Bourne shell and Korn shell	\$
Bourne shell and Korn shell for superuser	#

STB Installation on OpenSolaris

STB on OpenSolaris currently supports Explorer at a minimum level of 6.0. The STB installer bundle on OpenSolaris will primarily do the following tasks:

- Detect if a depot server has been up and running for your environment.
 - If not, STB will setup and configure one for you.
 - If the depot server is already running, STB will deploy the IPS based Explorer packages files on it.
- After deploying the IPS packages, STB installs those packages on the client host by fetching it from the configured Depot server.

In order to perform these tasks STB requires a few inputs from the user. Thus it is advisable that the user collects this information before running the STB installer on OpenSolaris.

Prerequisites

- If the depot server is already running, the details like depot server URL and port are available.
- If the depot server is yet to be setup, the host and port number is chosen.
- STB Installer should be executed by the user who has sufficient privileges to install or remove an application and administer services (SMF)

Note – Since the default installation of OpenSolaris does not expose the root account, privileged users should run `pfexec` to execute the commands as root. Example: `pfexec ./install_stb_opensol.sh`

- The chosen depot server host is accessible via `ssh` from the client host where the STB installer is being executed and the user has sufficient privileges to perform remote login, configure and administer services (SMF).

- Approximately 53 MB of free disk space is available in the STB install path of the client host where the STB is being executed

Note – STB installation path can be defined using the environmental variable `STB_INST_PATH`. For more details on `STB_INST_PATH` and its usage, refer to the question "If I do not have enough space in `/tmp`, can I still install STB?" in [STB FAQ](#).

- The user who installs Explorer IPS packages must be aware of the basics of IPS packaging on OpenSolaris. More information on OpenSolaris IPS packages can be found at:
 - <http://opensolaris.org/sc/src/pkg/gate/src/man/pkg.5.txt>
 - <http://opensolaris.org/os/project/pkg/documents/>

Note – Although the default depot server authority for all IPS packages is set to `OpenSolaris.org`, STB installer cannot deploy the Explorer packages on `OpenSolaris.org`. The user must identify a host in the local network in order to be able to deploy and install IPS-based Explorer packages through the STB installer.

Installing OpenSolaris

When you install OpenSolaris you can set up the Depot Server on the localhost or on a remote host server. This chapter explains both procedures:

- “Setting Up the Depot Server on the localhost” on page 11
- “Setting Up the Depot Server on a Remote Host” on page 14

Setting Up the Depot Server on the localhost

Complete the following steps to setup the Depot server on the localhost.

▼ To setup the Depot server on the localhost

Before You Begin You must ensure that you have sufficient privileges to install, remove applications and administer services (SMF) on the host you wish to install explorer.

- 1 Run the STB installer script for OpenSolaris on your localhost to set it up as the default Depot server for the Explorer installation.**

The following information is displayed:

```
bash-3.2# pfexec ./install_stb_opensol.sh
Services Tools Bundle(STB) v5.2 Installer
Checksumming...
```

A list of available components for installation in this bundle of STB is displayed. (Currently, only Explorer is part of STB for OpenSolaris.)

List of Components and Corresponding Selection

```
1. Install Explorer v6.3 ? (y/n) y
Explorer details can be found at <http://docs.sun.com/app/docs/coll/1554.2>
```

2 When you are prompted for the choice for installing the components, choose *y* to continue with the installation.

STB provides you the option of proceeding with the installation or exiting:

```
Would you like to (I)nstall component selections, or (E)xit ? I(default)
```

3 To continue with the installation, type: *l*

The following information is displayed:

```
STB is installing all selected modules and their dependencies.
```

```
Details of this will be in /var/log/install_stb-v5.2.log
```

```
Please wait.....
```

```
Installing Sun(TM) Explorer Data Collector .....
```

```
Preferred authority is detected from the pkg publisher list. This is taken as the default publisher for publishing explorer packages.
```

Note – Before proceeding further, you must ensure that you have ssh login access to this publisher with sufficient privileges to configure and start pkg service on this host

To know more about publisher, refer to the *pkg* man page or refer the documentation as mentioned above.

The following is displayed:

```
Your preferred depot server is http://pkg.opensolaris.org:80/.
```

```
You may need to have sufficient privilege to install explorer on this server.
```

```
Use it for explorer Installation? (Y/N)(default:y)? [y,n,?] n
```

4 To publish the packages to the preferred publisher, type: *y*. Else choose *n*.

The following information is displayed:

```
Please enter server url to publish packages
```

```
(Example http://myhostname.domain default: http://localhost):
```

5 To accept the default choice of *http://localhost*, type: *y*

The authority setup requires a few user configurable parameters like Port number and directory path.

The following information is displayed:

```
Please enter the Port number to connect to server
```

```
(default:10000):13000
```

```
Refreshing the package catalogs..
```

6 Enter the port at which the connection to depot server would be established.

The default port here is *10000*.

The following information is displayed:

```
Please enter the directory to push packages in server
( default /var/pkg/repo): /usr/pkg/repo
```

7 Enter the repository path for the authority, where the package will be deployed.

The default value is /var/pkg/repo

STB tries to update the package catalogs from this authority. If the refresh is successful, it proceeds to publish the explorer packages into this authority. If not, its possible that the corresponding http service on this authority has been disabled. Hence, STB tries to restart it after reaffirming with you about the authority settings once more.

The following information is displayed:

```
Refreshing the package catalogs..
Pkg service seems to be disabled in http://localhost. Trying to restart the service..
Please enter the directory to push packages in server ( default /usr/pkg/repo):
Refreshing the package catalogs..
```

After starting up the http service, STB publishes the packages into the authority. Once the package is successfully published, it proceeds to install the packages into the client box.

Note – Do not worry about the warning message: *pkg.opensolaris.org: node name or service name not known*. This error message is displayed if your client host is not able to reach opensolaris.org, which generally is the case for hosts which cannot access the Internet.

The installation continues and the following information is displayed:

```
Pushing SUNWexplo to http://localhost
PUBLISHED
pkg:/SUNWexplo@6.3,5.11:20090109T174025Z
Ready to install SUNWexplo
Refreshing the package catalogs..
pkg: 1/2 catalogs successfully updated:
pkg.opensolaris.org: node name or service name not known
DOWNLOAD PKGS FILES XFER (MB)
Completed 1/1 164/164 24.97/24.97
```

```
PHASE ACTIONS
Install Phase 189/189
Refreshing the package catalogs..
Pushing SUNWexplu to http://localhost
PUBLISHED
pkg:/SUNWexplu@6.3,5.11:20090109T174139Z
Ready to install SUNWexplu
Refreshing the package catalogs..
pkg: 1/2 catalogs successfully updated:
```

```
pkg.opensolaris.org: node name or service name not known
DOWNLOAD PKGS FILES XFER (MB)
Completed 1/1 20/20 0.01/0.01

PHASE ACTIONS
Install Phase 29/29
Installation of Sun(TM) Explorer Data Collector <6.2> was successful

STB v5.2 installation is complete...
```

Setting Up the Depot Server on a Remote Host

To set up the Depot server on a remote host, complete the following steps:

▼ To set up the Depot server on a remote host

- 1 **Run the STB installer script for OpenSolaris on any host where you have sufficient privileges to install, remove applications and administer services (SMF).**

The following information is displayed:

```
bash-3.2# pfexec ./install_stb_opensol.sh
```

```
Services Tools Bundle(STB) v5.2 Installer
```

```
Checksumming...
```

The list of available components for installation in this bundle of STB is displayed. (Currently, only Explorer is part of STB for OpenSolaris. You are prompted for the choice for installing the components.)

```
List of Components and Corresponding Selection
```

```
1. Install Explorer v6.3 ? (y/n) y
```

- 2 **When you are prompted for the choice for installing the components, choose *y* to continue with the installation.**

STB provides you the option of proceeding with the installation or exiting.

The following information is displayed:

```
Would you like to (I)nstall component selections, or (E)xit ? I(default)
```

3 To continue with the installation, type: I

The following information is displayed:

```
STB is installing all selected modules and their dependencies.
Details of this will be in /var/log/install_stb-v5.2.log
Please wait....
Installing Sun(TM) Explorer Data Collector .....
```

Preferred authority is detected from the *pkg_publisher* list. This is taken as the default publisher for publishing Explorer packages.

Note – Before proceeding further, you must ensure that you have ssh login access to this publisher with sufficient privileges to configure and start pkg service on this host

The following information is displayed:

```
Your preferred depot server is http://pkg.opensolaris.org:80/.
You need to have sufficient privilege to install explorer on this server.
Use it for explorer Installation? (Y/N)(default:y)? [y,n,?] n
```

4 To choose your own authority, type: N

Do not accept the default host. By typing *N*, you can set your remote host as your authority for publishing Explorer package. Before proceeding further, you must ensure that you have sufficient privilege to configure and start pkg service on the remote host.

Note – To know more about authority, refer to the *pkg* man page or refer the documentation as mentioned above.

The authority setup requires a few user configurable parameters like directory path and Port number.

The following information is displayed:

```
Please enter server url to publish packages
(Example http://myhostname.domain default: http://localhost):
```

5 Type the URL of your remote OpenSolaris host.

The following information is displayed:

```
Please enter the Port number to connect to server (default:10000):
12000
Refreshing the package catalogs..
```

6 Enter the Port number of your remote OpenSolaris host.

If the corresponding http service is disabled on the remote host, STB will attempt to start it.

The following information is displayed:

```
Pkg service seems to be disabled in
http://opensolaris1.mydomain:12000/. Trying to
restart the service..
Please enter the directory to push packages in server
( default /var/pkg/repo): /usr/pkg
```

Before starting the service on the remote host, SSH login to remote host will be prompted.

7 Enter the login credentials for making a ssh connection to the remote host.

The following information is displayed:

```
Please enter username for opensolaris1.mydomain (default : root): jack
Please enter password for jack upon prompt
The authenticity of host ' opensolaris1.mydomain (101.152.38.123)'
can't be established.
RSA key fingerprint is 9a:cb:92:79:25:fd:d0:70:a2:fa:aa:02:92:34:1e:5e.
Are you sure you want to continue connecting (yes/no)? yes
Password:
```

8 To continue to connect to the remote server and install the Explorer packages, type: yes

STB does a disk space check before proceeding with the installation:

- If the minimum disk space is not available, STB will fail to install and will display the appropriate error log as in the following message:

```
bash-3.2# ./install_stb_opensol.sh

Services Tools Bundle(STB) v5.2 Installer

Current available disk space on /tmp : 43412KB may not be enough for STB.
Please make sure that you have a minimum space of 54272KB
bash-3.2#
bash-3.2# df -k /tmp
Filesystem      kbytes  used   avail  capacity  Mounted on
swap            2171720 2127564 44156   98%       /tmp
```

- If there is sufficient space, the installation continues and the following information is displayed:

```
Pushing SUNWexplo to http://localhost
PUBLISHED
pkg:/SUNWexplo@6.3,5.11:20090109T174025Z
Ready to install SUNWexplo
Refreshing the package catalogs..
pkg: 1/2 catalogs successfully updated:
pkg.opensolaris.org: node name or service name not known
DOWNLOAD PKGS FILES XFER (MB)
Completed 1/1 164/164 24.97/24.97
```

PHASE ACTIONS

Install Phase 189/189

Refreshing the package catalogs..

Pushing SUNWexplu to http://localhost

PUBLISHED

pkg:/SUNWexplu@6.3,5.11:20090109T174139Z

Ready to install SUNWexplu

Refreshing the package catalogs..

pkg: 1/2 catalogs successfully updated:

pkg.opensolaris.org: node name or service name not known

DOWNLOAD PKGS FILES XFER (MB)

Completed 1/1 20/20 0.01/0.01

PHASE ACTIONS

Install Phase 29/29

Installation of Sun(TM) Explorer Data Collector <6.2> was successful

STB v5.2 installation is complete...

