

Matisse[®] Installation Guide for Solaris

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MATISSE Installation Guide for Solaris

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Installing Matisse on Solaris

Matisse is now available for Solaris 10 32-bit and 64-bit operating systems on Sun SPARC machines and on machines running x86 (32-bit) and x86_64 (64-bit) chips.

System Requirements

Before installing Matisse on Solaris, check to see that your system meets the following requirements:

SPARC 32-Bit Kernel

- ◆ Solaris 10 or higher.
- ◆ At least 128 MB of RAM
- ◆ At least 100 MB of disk space for Matisse (the server, the client, and the development kit)

SPARC 64-Bit Kernel

- ◆ Solaris 10 or higher
- ◆ At least 256MB of RAM
- ◆ At least 100 MB of disk space for Matisse (the server, the client, and the development kit)

x86 32-Bit Kernel

- ◆ Solaris 10 or higher.
- ◆ At least 128 MB of RAM
- ◆ At least 100 MB of disk space for Matisse (the server, the client, and the development kit)

x86 64-Bit Kernel

- ◆ Solaris 10 or higher
- ◆ At least 256MB of RAM
- ◆ At least 100 MB of disk space for Matisse (the server, the client, and the development kit)

Initial Installation of Matisse

CAUTION: You must log in as root to complete the installation successfully.

Installing Matisse from the Web

After downloading the installation file from the Web, you must first uncompress and untar the file before running the `pkgadd` utility to begin installation of the Matisse modules:

Run the commands:

```
gzip -d matisse_download.tar.gz
tar xvf matisse_download.tar
```

Using the pkgadd Command

To begin the installation of the Matisse modules, run the `pkgadd` command in the directory where you expanded the matisse download.

```
# pkgadd -d .
The following packages are available:
 1  MCLIRT9      Matisse Client Runtime Environment 9.x
                    (sparc) 9_x_x
 2  MODBC9      Matisse ODBC driver 9.x
                    (sparc) 9_x_x
 3  MSDK9       Matisse Development Kit 9.x
                    (sparc) 9_x_x
 4  MSRVRT9     Matisse Server Runtime Environment 9.x
                    (sparc) 9_x_x
```

```
Select package(s) you wish to process (or 'all' to process
all packages). (default: all) [?,??,q]:
```

For a full installation, just type `Enter`.

Messages indicating the progress of the installation appear and some questions are asked. Follow the setup instructions to complete the installation for each module.

Installing the Matisse Port-Monitor

Matisse handles client-server communications through a port-monitor. (See also [Matisse Server Administration Guide](#).) The Matisse port-monitor is necessary for every communication transport layer. You may choose during the installation to update your system configuration to start it automatically upon reboot of the host machine.

Automatic Database Restart

If you are installing the server module for the first time using the `pkgadd` utility, the installation script displays the following message before installing the module:

```
You can automatically restart the database upon system
reboot and stop the database upon system shutdown.
When the system shuts down, the database is stopped.
This script creates scripts in /etc and /etc/init.d.
```

```
Do you want to proceed [y,n,?,q]
```

If you type `y` and press `Return`, the following messages are displayed:

```
See the files /opt/matisse9_x/sys/mt_boot and
/opt/matisse9_x/sys/mt_stop to proceed.
```

The installation is now complete. There are some additional tasks to perform before using Matisse which are covered in the following section.

Additional Installation Tasks

Before running Matisse, make sure your `PATH` and other environment variables are set properly. In the top directory of your Matisse installation you will find the file `mt_env`, which contains environment variable definitions for `MATISSE_HOME`, `MATISSE_CFG`, and `MATISSE_LOG`. (See also [Matisse Server Administration Guide](#).)

In the same directory, you will also find `mt_boot` and `mt_stop`, which you may use as templates to create scripts to start and stop Matisse databases automatically on system startup and shutdown.

Manually Installing a Port-Monitor

If you skipped the part related to the port-monitor during the installation process, you can manually create one by doing the following while logged in with root privileges. Before starting a database, allocate a port to the Matisse port-monitor service.

1. Edit `/etc/services` system file and add the following line:

```
mtportmon 7421/tcp
```

2. Start the port-monitor using the following command:

```
mt_pmadm -s -p mttcp -t tcp
```

3. Use `mt_pmadm -p mttcp -L` to check for the port monitor status. You can also check that the port monitor has a currently active connection with the `netstat -a` command. The port-monitor log in the `MATISSE_LOG` directory should contain the following trace:

```
17:34:27 MATISSE Portmon Version 9.x.x
17:34:27 PORTMON-I-ISTATE, Initial state: enabled
```

After the installation

At this stage, you do not need to be logged as root. Verify that you have the Java Runtime Environment installed on your machine. For instance:

```
> which java
/opt/jdk1.7.0_02/bin/java
```

Set the proper environment variable to run Matisse. You may execute one of the following environment setup scripts depending on your shell:

```
> source <install_dir>/mt_env.sh(sh, bash, ksh shells)
> source <install_dir>/mt_env.csh(csh, tcsh shells)
```

Then you can launch the Matisse Enterprise Manager to create or start your databases:

```
> mt_emgr &
```

Open the file `readme.html` located in `/opt/matisse9_x/` for a quick start with using Matisse.

Installation Notes

- ◆ Compatibility:

Matisse 9.0 client/server dialog is incompatible with all platforms running previous versions of Matisse. Therefore, you should ensure that your client applications are linked with the latest 9.0 client library.

- ◆ Troubleshooting:

For troubleshooting, or for a more detailed description of the installation process, please refer to the last section of this document.

- ◆ Problems/feedback:

Please report any problem or feedback to our support at support@matisse.com via our feedback page at www.matisse.com.

Installing the Matisse ODBC Driver

The Matisse ODBC driver included with the standard Matisse installation currently supports both the INTERSOLV Solaris Driver Manager and the Open Source iODBC Driver Manager, with ODBC 2.0 API functions.

Setting Up

First, either the INTERSOLV or the iODBC driver manager must be installed, and the path for the driver manager must be in the `LD_LIBRARY_PATH` of the shell configure file.

Check to see if the Intersolv ODBC driver manager was installed by default on your Solaris machine. The default installation directory is `/opt/ISLIodbc`. If not, you can install the Intersolv driver manager from the software supplement CD of the Solaris desktop version.

You can also visit the iODBC website (at www.iodbc.org) and download the source for the iODBC open source ODBC driver manager, and compile it on your machine. It only takes a few minutes to configure and install.

Since the default installation directory of the Intersolv driver manager is `/opt/ISLIodbc`, and the driver manager library is in `/opt/ISLIodbc/lib`, in your shell configuration file (`.cshrc` or `.bashrc` for example) add the following to your `LD_LIBRARY_PATH`:

```
>LD_LIBRARY_PATH=${LD_LIBRARY_PATH}:/opt/ISLIodbc/lib
```

The corresponding addition for the iODBC driver manager would be:

```
>LD_LIBRARY_PATH=${LD_LIBRARY_PATH}:/usr/local/iodbc/lib
```

In your home directory you need to write a file called `.odbc.ini` that has the information needed by the driver manager and the driver itself when connecting to a database. A sample `.odbc.ini` is provided in the `/bin` directory of your Matisse installation.

In the following example, Matisse is installed in the default directory `/opt/matisse9_x`, so the ODBC driver library (`libmatisseODBC.so.9`) would be in the `/opt/matisse9_x/lib/` directory. For instance, if the database name is `accounts`, and the host computer is `cornsilk`, the format of the `.odbc.ini` file needs to be as follows:

```
# Identifier for connection information to a specific
# database - a DSN or data source name
[ODBC Data Sources]
matissedsn=MATISSE DATABASE

[matissedsn]
Driver=/opt/matisse9_x/lib/libmatisseODBC.so.x
Database=accounts
HostName=cornsilk
```

Testing the mt_odbc Utility

To run the program `mt_odbc`, enter:

```
>mt_odbc <data source name>
```

In the `.odbc.ini` file described previously, the data source name is `matissedsn`, so the command would be:

```
>mt_odbc matissedsn
```

Then, you may run any SQL queries. For instance, to list the classes in your database:

```
mt_odbc> SELECT MtName from MtClass;
```

Enter `help` for a guide to Matisse SQL syntax.

After You Have Installed Matisse

After you have installed Matisse, please read *Getting Started with Matisse*. You can find this and other Matisse documentation on the Matisse Software Web site:

<http://www.matisse.com/developers/documentation/>

Upgrading Matisse

To upgrade to a new Matisse version, previous versions of the Matisse modules must first be removed.

To remove previous modules:

1. Login as root and run the `pkgrm` command.
2. Remove all the Matisse modules that are listed.
3. Refer to [Initial Installation of Matisse](#) above to install the new version.

Upgrading the Port-Monitor

If Matisse was previously installed, you will need to upgrade to the newer version of the port-monitor:

- ◆ If you were running a Matisse Release 7.x, you must manually stop the old port-monitor before upgrading to the new one.

Before stopping the port-monitor, you must shutdown all databases.

1. To stop the port-monitor, run the following command:

```
mt_pmadm -k -p mttcp
```
2. After the port-monitor has been stopped, delete all files that end with `.pipe` or `.tab` from the `MATISSE_CFG` directory. You may also remove all files from the `MATISSE_LOG` directory.
3. Add the new port-monitor either through the installation script or as described above in [Additional Installation Tasks](#).

Troubleshooting your Matisse Installation

After following the standard Matisse installation procedure you should be able to run Matisse. In particular, the Matisse Port Monitor is automatically started by the installer, and set to be stopped and restarted during shutdown/reboot. It is also automatically stopped and removed by the uninstaller.

You may check the following guidelines if you experience any problem or if you want more control over the port monitor.

Install Directory

The commands `mt_env.sh` and `mt_env.csh` will set the `MATISSE_HOME`, `MATISSE_CFG`, `MATISSE_LOG` environment variables to `<install_dir>`. These variable should point to local filesystem paths.

If `<install_dir>` is a NFS directory, you will have to define new values to the `MATISSE_HOME`, `MATISSE_CFG`, `MATISSE_LOG` environment variables.

You may also verify that the `matisse` executables have write permission in the `log` directory and in the `config` directory.

```
> chmod a+w <install_dir>/log
> chmod a+w <install_dir>/config
```

Enterprise Manager

The Matisse Enterprise Manager is a Java application which requires Java 7 or higher to be installed and accessible on the machine. The commands `mt_env.sh` and `mt_env.csh` will set the path to the JVM whenever possible.

Remote Server Access

If you cannot connect to a remote database server because of errors such as `INVTRANSPORT` or `SRVCONFAILED` while you can establish local connections without any problem, you may need to double check your firewall settings. Please refer to the [Matisse® Server Administration Guide](#) for more details on updating your firewall settings.