Matisse® Installation Guide for MacOS X

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Installing Matisse on MacOS X

System Requirements

Before installing Matisse on MacOS X, you must have the following system requirements:

Hardware

◆ At least 64 MB of RAM; 128 MB RAM is recommended

◆ 100 MB disk space

◆ x86 (32 bit / 64 bit) Intel chips families

Operating System

◆ MacOS X 10.11 El Capitan or higher

Software Requirements

◆ The MatisseDbms Application known as Matisse Enterprise Manager requires the Java Development Kit (JDK) version 8 or higher installed on the machine.

◆ For developing applications in C, C++ or Objective C you will need Xcode installed on the machine.

Installing Matisse DBMS on MacOS X

This section guides you through the installation of Matisse DBMS.

CAUTION: You will be required administrator authentication to successfully complete the installation.

Uninstall Matisse

Before installing, you need to stop all the running Matisse databases and uninstall your previous installation of Matisse.

WARNING: This will **not** preserve your databases and any file that you may have created or updated in the installation directories. You need to make a backup or export the schema and data in XML for the databases you want to preserve.

To uninstall Matisse from your system, use the following commands.

```
> sudo sh /usr/local/matisse/sys/mt_uninstall.sh
```

Install Matisse

1. If you have a prior version of Matisse installed,

   a. you may make a backup of your data using the mt_backup utility. For more information, look at *Matisse Server Administration Guide*.

   b. If you need to migrate the data of Matisse version 9.x, export all the data using the mt_xml utility. For more information, look at *Matisse XML Programming Guide*.

   c. You need to stop all the running databases and uninstall Matisse before proceeding to the following step 2.

2. The MatisseDbms application requires Java installed on the machine.

3. Double-click the program file for the Matisse installer. The name of the file varies depending on the release:
   For Matisse DBMS 9.1.0 64-bit Edition, the file is `matisse910x64.pkg`

4. Follow the instructions on screen to accept the license agreement.The package will be installed in `/usr/local/matisse` and the services will be started. A Startup Item will be installed into `/Library/StartupItems/MatisseServices` to restart Matisse Services automatically during system startup. The Matisse Application will be installed into `/Applications/MatisseDbms.app`

5. The readme file will be open in your browser for a quick start with using Matisse.

After the installation

At this stage, you can launch the `MatisseDbms` application. You will find it in the Applications folder of Finder or in Launchpad.

You can also access all the command line tools and utilities located in `/usr/local/matisse/bin` from a Terminal. Set the proper environment variables to run Matisse. You may execute one of the following environment setup scripts depending on your shell:

```
> . /usr/local/matisse/mt_env.sh(sh, bash, ksh shells)
> source /usr/local/matisse/mt_env.csh(csh, tcsh shells)
```

Then you can list the command available

```
> ls /usr/local/matisse/bin
```

and launch the Matisse Server Manager to create or start your databases:

```
> mt_server list -s
> mt_server -d example init
```

Installing Matisse Lite on MacOS X

This section guides you through the installation of Matisse Lite.

CAUTION: You will be required administrator authentication to successfully complete the installation.

Uninstall Matisse Lite

Before installing, you need to uninstall your previous installation of Matisse Lite.

WARNING: This will **not** preserve your databases and any file that you may have created or updated in the installation directories. You need to make a backup or export the schema and data in XML for the databases you want to preserve.

To uninstall Matisse from your system, use the following commands.

```
> sudo sh /usr/local/matisselite/sys/mt_uninstall.sh
```

Install Matisse

1. If you have a prior version of Matisse Lite installed,
   a. If you need to migrate the data of Matisse version 9.x, export all the data using the mt_xml utility. For more information, look at *Matisse XML Programming Guide*.

2. The MatisseliteDb application requires Java installed on the machine.

3. Double-click the program file for the Matisse installer. The name of the file varies depending on the release:
   For Matisse Lite 9.1.0 64-bit Edition, the file is `matisselite910x64.pkg`

4. Follow the instructions on screen to accept the license agreement. The package will be installed in `/usr/local/matisselite`. The Matisse Application will be installed into `/Applications/MatisseliteDb.app`

5. The readme file will be open in your browser for a quick start with using Matisse.

Installation Notes

◆ Compatibility:

Matisse 9.1 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 9.1 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*.

Managing Matisse Services

The `mt_services.sh` shell script located in the `sys` directory of a Matisse installation holds the commands to start/stop the Matisse services after a reboot/shutdown of the machine. With the Administrator privileges, the DBA can update the file to activate/deactivate Matisse Services. By default, Matisse portmon for TPC/IP and for local socket (AF_UNIX) are activated. Matisse Server Manager Listener (SMListener) which requires Java 6 or higher to be installed and accessible on the machine is activated as well.

If needed you can stop the Matisse Services with the command line tool as follows:

```
> sudo /sbin/SystemStarter stop "MatisseDbmsListeners"
```

Then you can restart the Matisse Services with the command line tool as follows:

```
> sudo /sbin/SystemStarter start "MatisseDbmsListeners"
```

Port Monitors

Matisse port monitor allows client applications to connect to any Matisse server with a single port number. Matisse portmon for `TPC/IP` and for local socket (`AF_UNIX`) are activated. You need at least one portmon activated on the machine. If you only intend to run your application and the database server locally on the same machine, you may only need to active `local` connections.

```
start() {
  [...]
  # Start portmon services
  ${MATISSE_HOME}/bin/mt_pmadm -s -p mtlocal -t local &&
success "mt_portmon local startup" || failure "mt_portmon
local startup"
  RETVAL=$?
  [...]
}

stop() {
  [...]
  # Stop portmon services
```

```
      (${MATISSE_HOME}/bin/mt_pmadm -k -p mtlocal || killproc
    mt_portmon) && success "$base mtlocal shutdown" || failure
    "$base mtlocal shutdown"
      [...]
    }
```

Server Manager Listener

Matisse Server Manager Listener (SMListener) manages remote operation requests on a local network. This service is optional and not recommended if you don't want to remote administer your database servers.

To deactivate/activate the SMListener, you need to comment/uncomment the start and stop command in the sys/mt_services.sh shell script.

```
# Matisse Server Manager Listener service
#
you also need to uncomment the script of the start() and
stop() function in the sys/mt_services.sh shell script.
start() {
  [...]
  # Matisse Server Manager Listener service
  # ${MATISSE_HOME}/bin/mt_smlistener &
  #RETVAL=$?
  [...]
}

stop() {
  [...]
  # Matisse Server Manager Listener service
  #killall -9 mt_smlistener && success "$base mt_smlistener
shutdown" || failure "$base mt_smlistener shutdown"
  [...]
}
```

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.

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 /usr/local/matisse. These variable should point to local file system paths.

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

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

MatisseDbms Application

The MatisseDbms Application or known as Matisse Enterprise Manager is a Java application which requires Java 8 or higher to be installed and accessible on the machine. You can check that java 8 installation with the following commands:

```
> /usr/libexec/java_home
/Library/Java/JavaVirtualMachines/jdk1.8.0_66.jdk/Contents
/Home

> java -version
java version "1.8.0_66"
Java(TM) SE Runtime Environment (build 1.8.0_66-b17)
Java HotSpot(TM) 64-Bit Server VM (build 25.66-b17, mixed
mode)
```

Matisse Port Monitor

The port monitor allows client applications to connect to any Matisse server with a single port number. To check if the port monitor is properly installed and started, and then verify (or add) the following line in `/etc/services`:

```
mtportmon      7421/tcp # Matisse port monitor
```

You may verify that it is running with mt_pmadm:

```
> mt_pmadm -L -p mttcp
11:17:33 PMADM-I-PMSTATE, Port Monitor is enabled
11:17:33 PMADM-I-TRPTYPE, Transport type: tcp
11:17:33 PMADM-I-NOSVCLIST, No services registered
```

If you do not have a port monitor running, login as root and set your environment variables, then start the port monitor. Then verify that it is properly running with the `-L` option or by checking the log file:

```
> sudo /sbin/SystemStarter start "MatisseDbmsListeners"
> cat /usr/local/matisse/log/mttcp.myhost.log
17:27:00 MATISSE Portmon Version 9.0.0.0
17:27:00 PORTMON-I-ISTATE, Initial state: enabled
17:27:00 PORTMON-I-INITCOMPLETE, Initialization complete
```

Tcp Connections   When the port monitor for the TCP transport is properly installed and started, if you cannot connect to a local database via TCP because of errors such as UNKNOWNHOST, you need to check that your host name resolves to its IP address by successfully running a ping command.

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.