

MarkMagic Platform Independent 9.5



Installation Guide

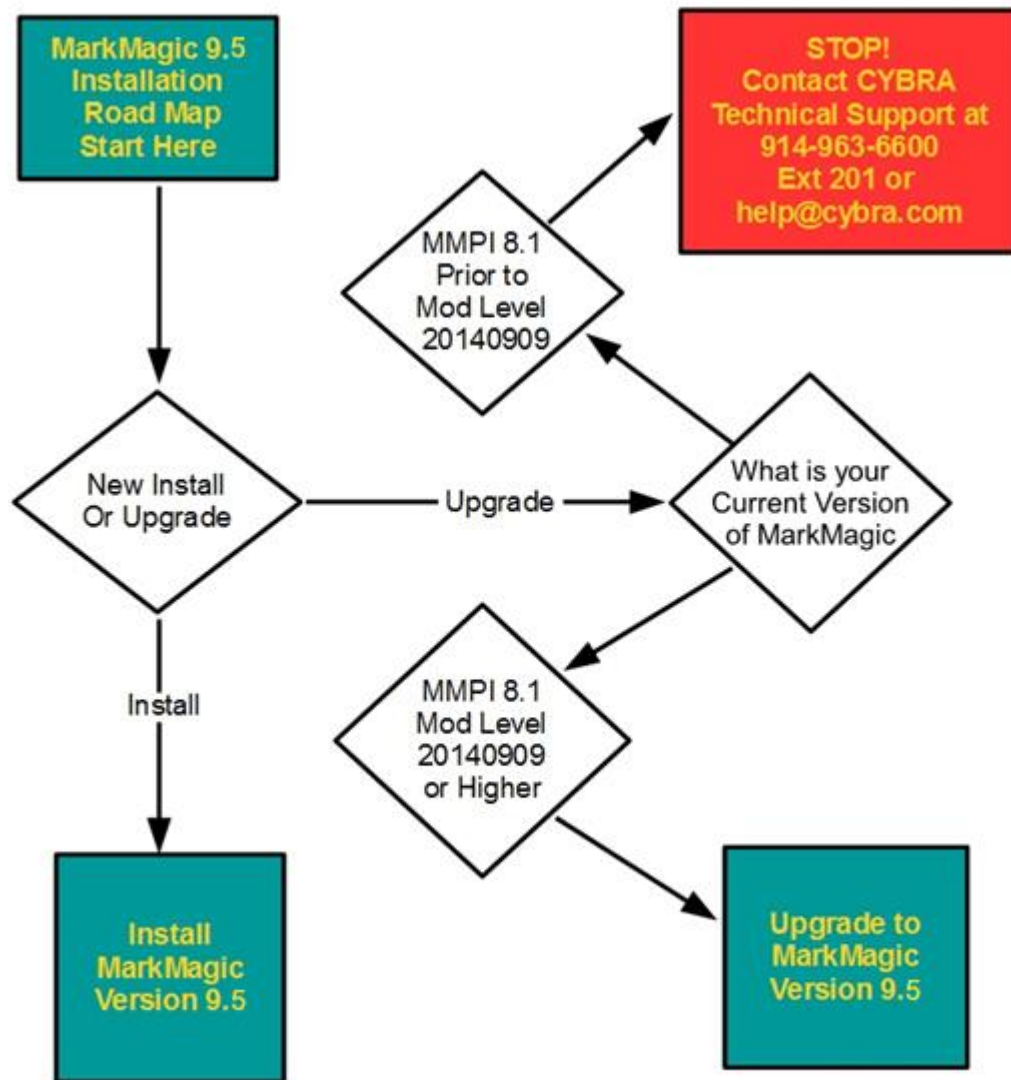


We identify with success.

Table of Contents

<i>A. Roadmap</i>	3
<i>B. Introduction to MMPI 9.5</i>	4
<i>C. Installation of MarkMagic PI 9.5</i>	5
Java Installation	6
Tomcat Installation	7
Environment Variable Configuration	8
MarkMagic PI Installation and Startup	10
<i>D. Upgrade MarkMagic PI</i>	12
Temporarily Suspend Tomcat	13
File Clean-up	15
Deploy War File	16
Confirm Installation	18
Connect to the MMPI Web Application	19
H2 Database & Recovery	20
<i>E. Applying the License</i>	21
Obtaining MAC Address	21
Installing the License File	22
<i>F. JMagic Installation</i>	23
JMagic Installation	24
Starting JMagic	25

A. Roadmap



B. Introduction to MMPI 9.5

MarkMagic PI is a Java web application that runs on a web application server. MarkMagic PI allows you to manage your MarkMagic documents through a web interface. You can print, monitor a folder for print data, maintain printers, and more through the MarkMagic PI web interface. MarkMagic PI allows you to have access to your MarkMagic documents as long as you have connection to the server that MarkMagic PI is installed on.

MarkMagic installation files and documentation are available via download from the CYBRA website www.CYBRA.com

1. Installation Terms

Install - An install is a new installation of MarkMagic PI 9.5

Upgrade - An Upgrade is a move from version to version; for example, if you are an existing customer on MarkMagic PI 8.1 and you wish to install MarkMagic PI 9.5.

C. Installation of MarkMagic PI 9.5

The link to download MarkMagic PI 9.5 can be found at www.cybra.com/my-downloads/. If you are prompted to open or save the file, save it to a temporary directory on your PC. Once the download is complete, find the downloaded file and extract the zip file's contents. The enclosed file will contain the MMPI.war file.

1. Prerequisites / Requirements

Java - Java 8 or higher. **Please note**, this is a new requirement. (Previous versions of MarkMagic PI only required Java 6 or higher.)

Web application Server - A web application server that supports Java. Apache Tomcat 7 or higher is recommended.

Common Platforms - Microsoft Windows and Windows Server, Red Hat and Ubuntu Linux, IBM AIX. CYBRA recommends Apache Tomcat, so if your server can run Apache Tomcat along with Java, then it should be able to run MarkMagic PI.

The base installation of MarkMagic PI is about 100MB and will gradually grow from there as you design more labels and forms.

Any modern-day server should be able to run MarkMagic PI. Naturally, as your printing volume grows throughout your company, your server hardware requirements will need to be adjusted up.

MarkMagic PI can run on a simple dual core server with 512MB ram all the way up to enterprise level servers.

Please contact help@cybra.com if you would like to discuss adjusting Apache Tomcat memory settings for high volume printing situations.

Java Installation

You will need to install a version Java Runtime Environment (JRE) version 8 or higher for your operating system if it is not already installed.

Windows / Linux

Download the Java JRE from Oracle's website:

<https://www.oracle.com/technetwork/java/javase/downloads/index.html>

IBM AIX

Download the Java JRE for IBM (requires an IBM account which can be created if you do not have one)

<https://www.ibm.com/developerworks/java/jdk/aix/service.html>

Tomcat Installation

You will need to install Tomcat if it is not already installed.

Windows

Download the Tomcat 7 (or later) Core Windows Service Installer

<http://tomcat.apache.org>

Follow the instructions in the installation wizard.

Linux / IBM AIX

Download the Tomcat 7 (or later) Core tar.gz

<http://tomcat.apache.org>

Or you can use your preferred package manager on your *nix OS to search and install Tomcat 7 or later version.

Environment Variable Configuration

Without an environment variable set, MMPI will end up storing its database and some configuration files in the home directory of the user running Tomcat. This is not ideal, so we recommend that you set the MM_H2_DIR environment variable to specify the database location. (Note: The user profile that runs Tomcat will need read/write access to this path.)

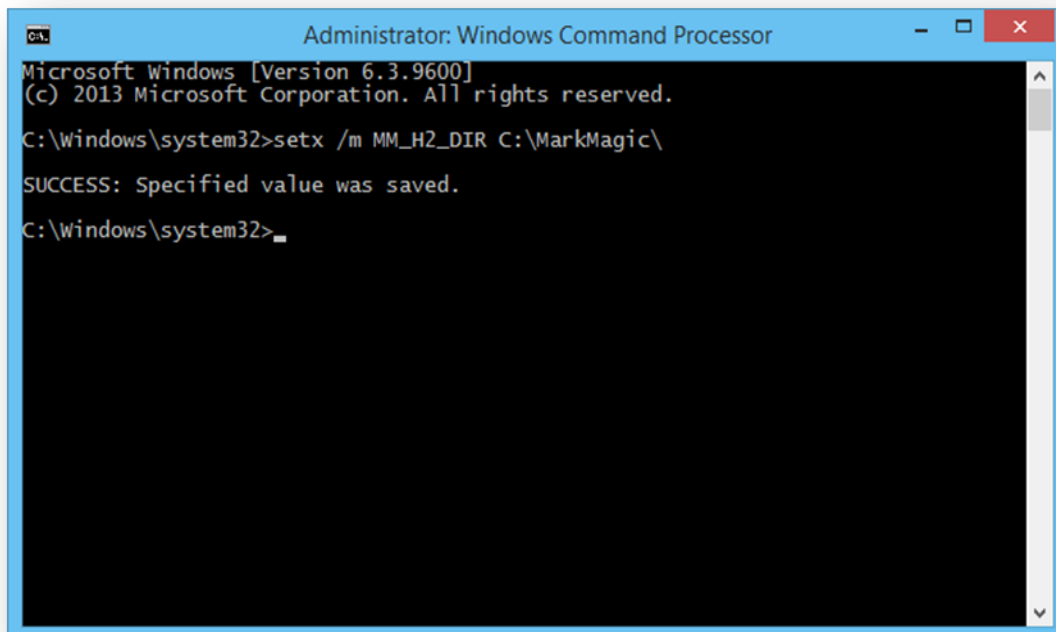
Windows

Run Command Prompt as Administrator

Use the following command to set the MM_H2_DIR environment variable

```
setx /m MM_H2_DIR C:\desired\path
```

Restart your computer.

A screenshot of a Windows Command Prompt window titled "Administrator: Windows Command Processor". The window has a blue title bar and a black background. The text inside shows the command prompt at "C:\Windows\system32>". The user has entered the command "setx /m MM_H2_DIR C:\MarkMagic\" and the prompt has responded with "SUCCESS: Specified value was saved." followed by a new prompt "C:\Windows\system32>".

```
Administrator: Windows Command Processor
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

C:\Windows\system32>setx /m MM_H2_DIR C:\MarkMagic\
SUCCESS: Specified value was saved.
C:\Windows\system32>
```

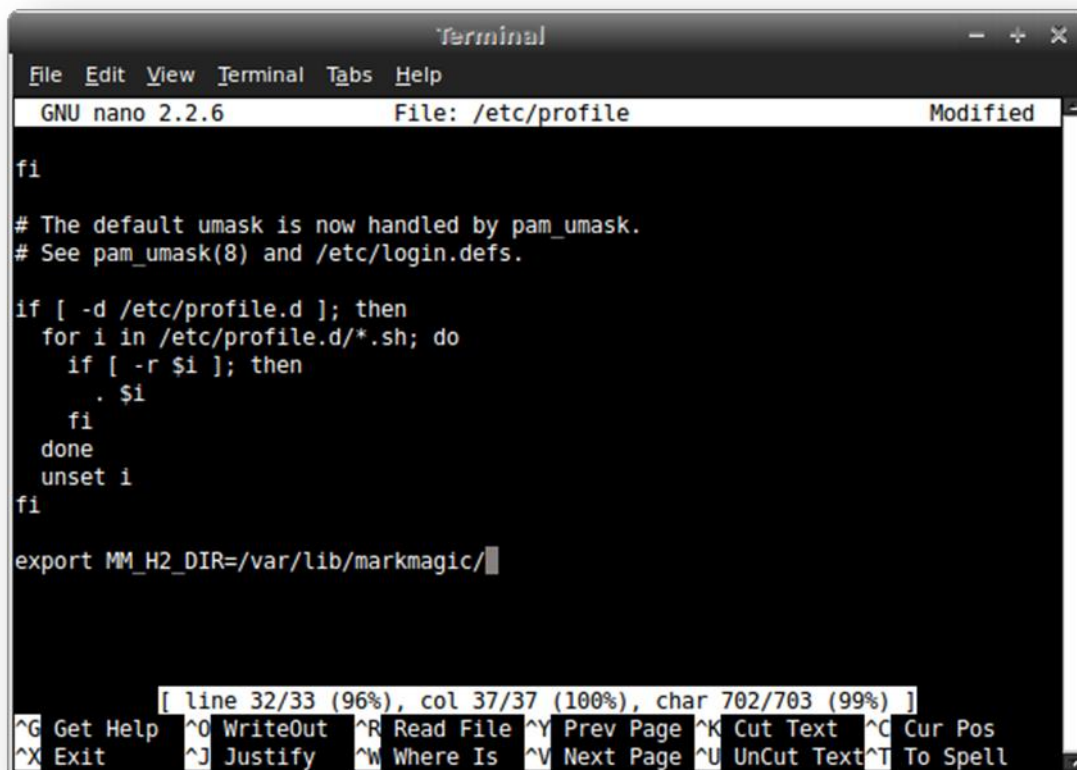

Linux

Open `/etc/profile` in a text editor (if it does not exist, create it)

Add the following line:

```
export MM_H2_DIR=/desired/path/
```

Save the file and restart your computer



```
Terminal
File Edit View Terminal Tabs Help
GNU nano 2.2.6 File: /etc/profile Modified

fi
# The default umask is now handled by pam_umask.
# See pam_umask(8) and /etc/login.defs.

if [ -d /etc/profile.d ]; then
  for i in /etc/profile.d/*.sh; do
    if [ -r $i ]; then
      . $i
    fi
  done
  unset i
fi

export MM_H2_DIR=/var/lib/markmagic/

[ line 32/33 (96%), col 37/37 (100%), char 702/703 (99%) ]
^G Get Help ^O WriteOut ^R Read File ^Y Prev Page ^K Cut Text ^C Cur Pos
^X Exit ^J Justify ^W Where Is ^V Next Page ^U UnCut Text ^T To Spell
```

MarkMagic PI Installation and Startup

Included in your MMPI distribution materials you will find a file called MMPI.war. This is the primary MarkMagic PI web app and it will need to be copied to the server where you are installing MMPI.

Windows

You will need to find your **[tomcat install]** directory for the next steps. By default it will be

C:\Program Files\Apache Software Foundation\Tomcat 7.0

Copy MMPI.war to the webapps directory inside of your Tomcat installation.

[tomcat install]\webapps\MMPI.war

Start Tomcat using tomcat7w.exe in the bin directory inside of your Tomcat installation. You will need to run this application as an Administrator. A dialog box will appear with the option to start Tomcat.

[tomcat install]\bin\tomcat7w.exe

Linux / IBM AIX

You will need to find your **[tomcat install]** directory for the next steps. This is the directory where you unpacked the tar.gz file from Apache.

Copy the MMPI.war to the webapps directory inside of your Tomcat installation.

[tomcat install]/webapps/MMPI.war

Open a terminal and navigate to **[tomcat install]/bin/** for the command below

Run the Tomcat startup script:

./startup.sh

Once Tomcat is started you are ready to connect to MMPI with a web browser.

Enter the following URL

<http://localhost:8080/MMPI/runApp?id=0>

If you are connecting to MMPI from a different system on the same network, you would need to change localhost with the IP address of the Machine that it was installed on.

<http://xxx.xxx.xxx.xxx:8080/MMPI/runApp?id=0>

You should be presented with a sign on screen for MMPI where you can use the default credentials below to sign in.

User ID: MMADMIN

Password: mmadmin

Proceed to Section E for applying your MMPI license and Section F for installing JMagic.

D. Upgrade MarkMagic PI

This section is meant to assist with upgrading an existing install of MarkMagic PI. For documentation on performing a new installation of MarkMagic PI, please refer to section C. This section assumes that you have a working MMPI 8.1, 9.0 or older 9.1 Mod Level already installed on your server. If you don't already have a working version of MarkMagic PI installed, please refer to section C.

Additionally, this section assumes the following are true.

- Java Development Kit (JDK) version 8 or higher is installed
- Tomcat version 7 or higher is installed
- The MM_H2_DIR environment variable is set

Note: Tomcat will need to be temporarily shut down during this upgrade. Please make sure that no one is using MarkMagic during this upgrade. Also check with the proper authority before stopping Tomcat if you have other webapps running on Tomcat.

Temporarily Suspend Tomcat

If Tomcat is currently running, you must temporarily shut it down.

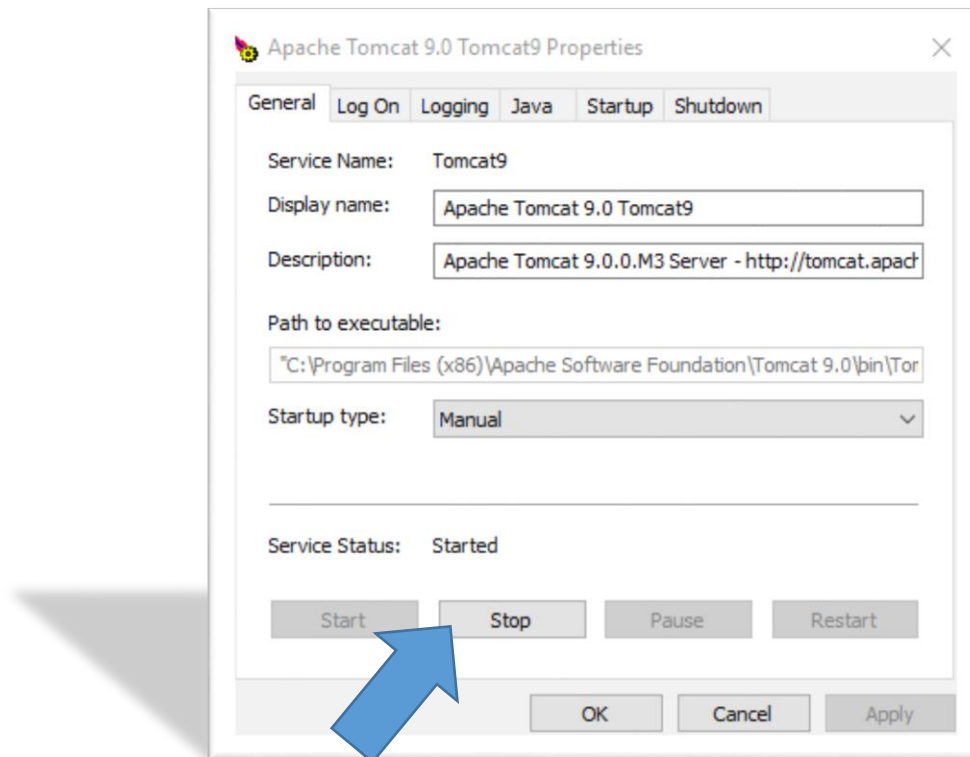
Windows

You will need to find your Tomcat install directory. If you installed Tomcat using the defaults, then it will be

C:\Program Files\Apache Software Foundation\Tomcat 7.0\bin

Open the Tomcat#w.exe application. The # coincides with your Tomcat version, Tomcat 7.0 would be Tomcat6w.exe.

You will need to run this application as an administrator. A dialog box will appear with the option to stop Tomcat, press the stop button and confirm that the Tomcat service has stopped.



Linux – Stopping the service

To stop Tomcat on Linux, bring up a terminal command line and run the command (replacing the 7 with whatever version Tomcat you have running):

```
sudo service tomcat7 stop
```

Linux – Stopping using a script

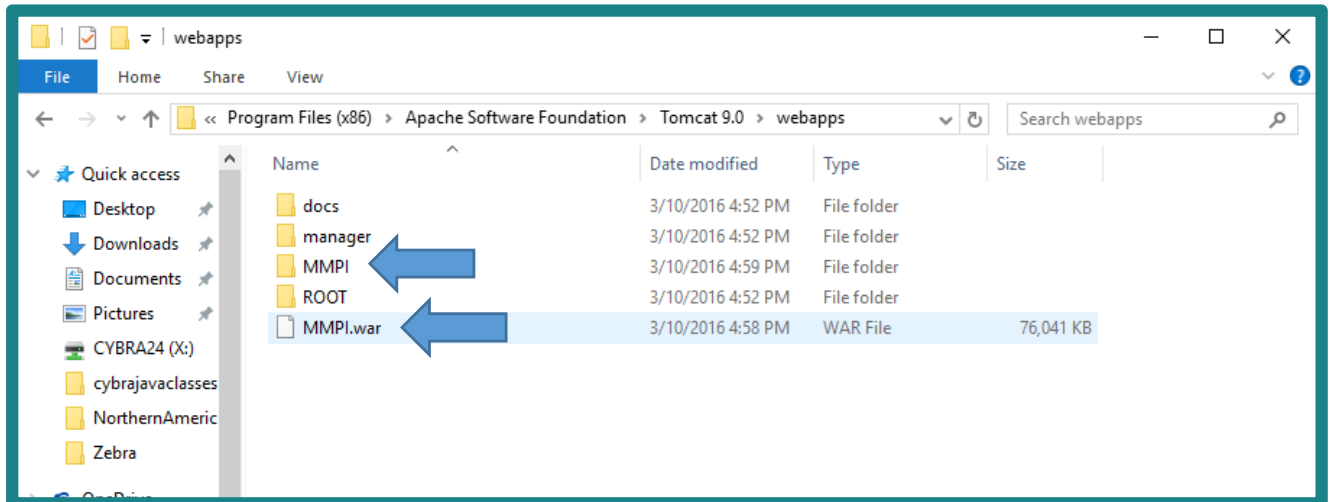
You could also use the script located in the Tomcat's bin directory to stop Tomcat. Navigate to Tomcat's bin directory. By default, this would be */usr/share/tomcat7/bin/*. Run the shutdown script by using the command:

```
./shutdown.sh
```

File Clean-up

With Tomcat shutdown, the existing MMPI.war file and the MMPI directory will need to be removed from the Webapps Directory. They can be found in the `/Tomcat7.0/webapps` directory. The MMPI directory can be safely deleted. We recommend moving the previous MMPI.war file out of the webapps directory to a backup location for now, rather than deleting it.

This screenshot shows Microsoft Windows explorer, but the same instructions apply to Linux / Unix / AIX:

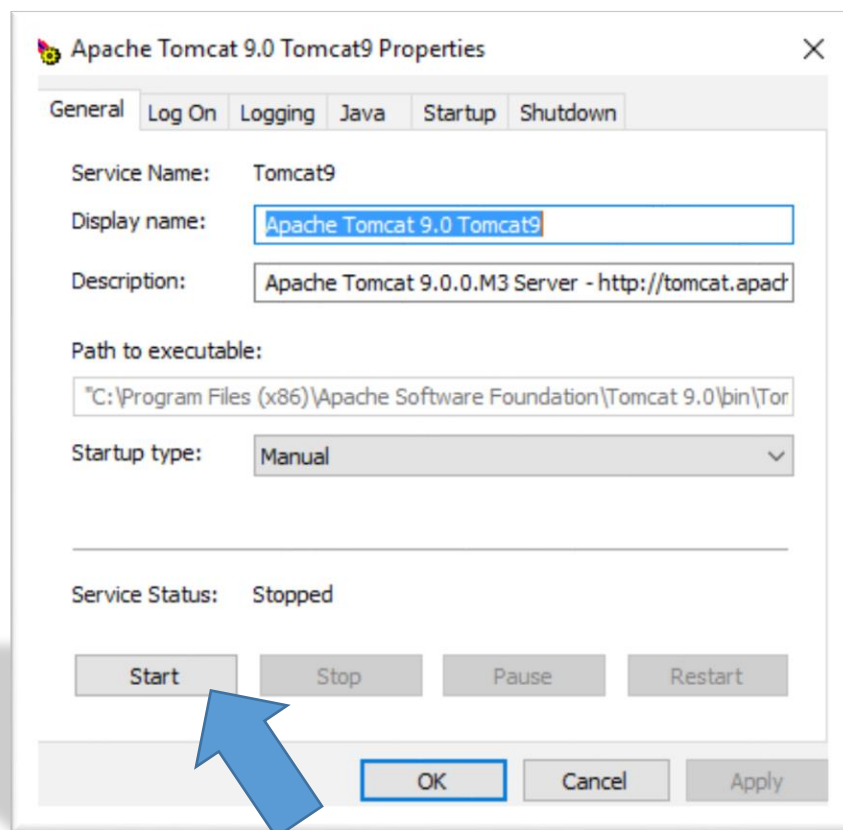


Deploy War File

The MarkMagic PI download package will contain the new **MMPI.war** file. Simply move this new **MMPI.war** file into the **/Tomcat 7.0/webapps** folder. Tomcat can now be restarted once the new **MMPI.war** file is in place.

Windows

Navigate back to the *Tomcat7.0/bin* directory and start the *Tomcat7w* executable. When the window pops up, press the start button and confirm that Tomcat has started.



Linux – Starting the service

To start Tomcat on Linux, bring up a terminal command line and run the command (replacing the 7 with whatever version Tomcat you have running):

```
sudo service tomcat7 start
```

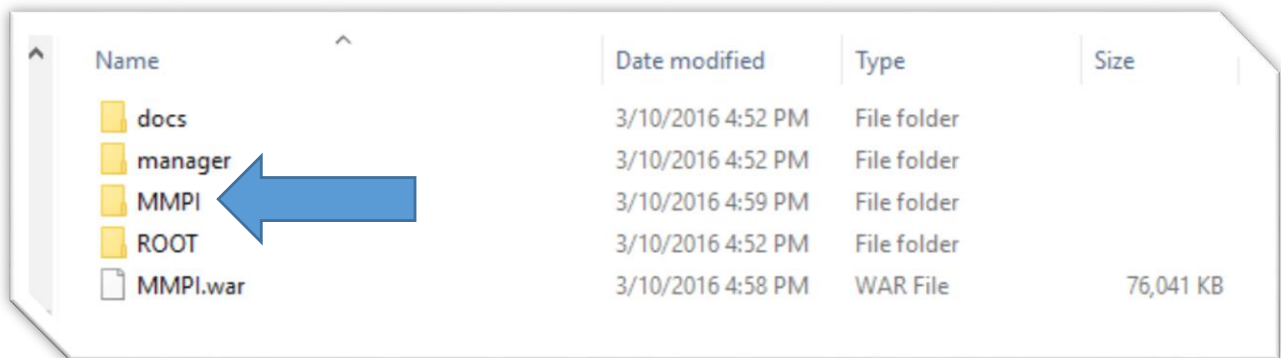
Linux – Starting using a script

You could also use the script located in the Tomcat's bin directory to start Tomcat. Navigate to Tomcat's bin directory. By default, this would be `/usr/share/tomcat7/bin/`. Run the startup script by using the command:

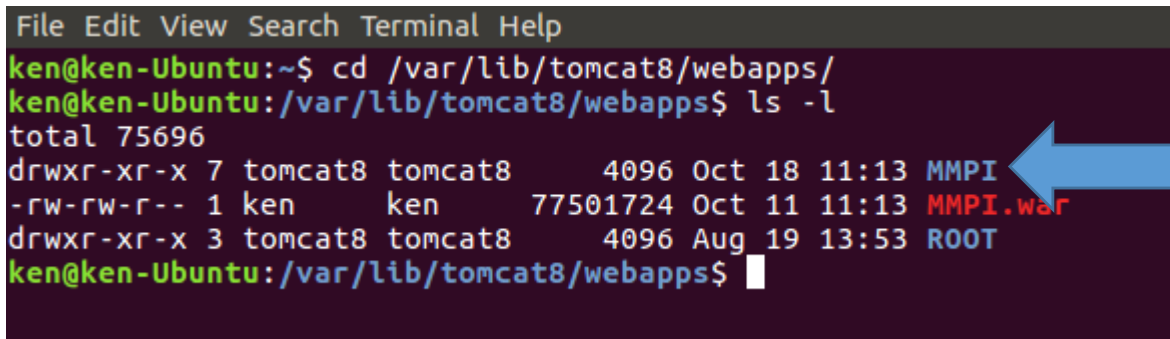
```
./startup.sh
```

Confirm Installation

Once Tomcat has been started we can confirm that the War file was deployed. To do this, navigate back to the *tomcat7.0/webapps* directory. Confirm that a new MMPI directory was created, this will confirm that the war file was deployed.



Name	Date modified	Type	Size
docs	3/10/2016 4:52 PM	File folder	
manager	3/10/2016 4:52 PM	File folder	
MMPI	3/10/2016 4:59 PM	File folder	
ROOT	3/10/2016 4:52 PM	File folder	
MMPI.war	3/10/2016 4:58 PM	WAR File	76,041 KB



```
File Edit View Search Terminal Help
ken@ken-Ubuntu:~$ cd /var/lib/tomcat8/webapps/
ken@ken-Ubuntu:/var/lib/tomcat8/webapps$ ls -l
total 75696
drwxr-xr-x 7 tomcat8 tomcat8    4096 Oct 18 11:13 MMPI
-rw-rw-r-- 1 ken     ken      77501724 Oct 11 11:13 MMPI.war
drwxr-xr-x 3 tomcat8 tomcat8    4096 Aug 19 13:53 ROOT
ken@ken-Ubuntu:/var/lib/tomcat8/webapps$
```

Connect to the MMPI Web Application

Once Tomcat is started, you are ready to connect to MMPI with a web browser. Enter the following URL

<http://localhost:8080/MMPI/>

If you are connecting to MMPI from a different system on the same network, you would need to change localhost with the IP address of the Machine that it was installed on.

<http://xxx.xxx.xxx.xxx:8080/MMPI/>

You should be presented with sign on screen for MMPI where you can use the default credentials below to sign in.

User ID: MMADMIN

Password: mmadmin

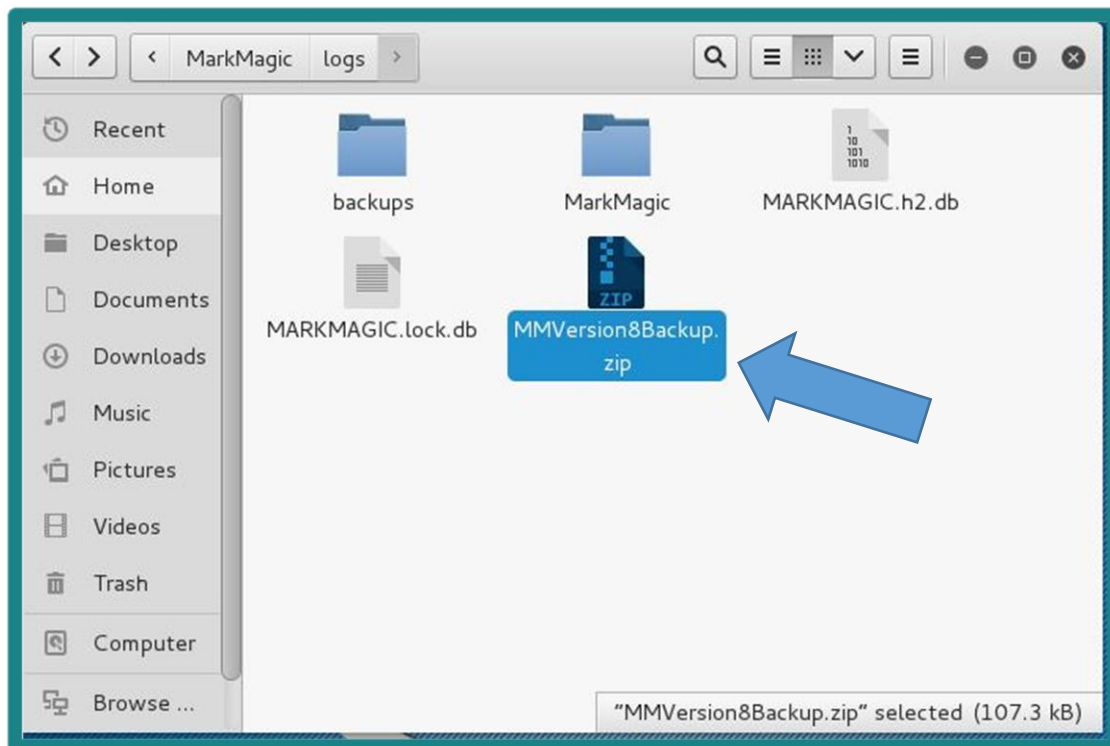
Proceed to Section E for applying your MMPI license and Section F for installing JMagic.

H2 Database & Recovery

If upgrading MMPI from version 8 to version 9, your version 8 H2 database will be backed up automatically. The name of the zipped file will be `MMVersion8Backup.zip` when moving from version 8. The backup will be placed in your `MM_H2_DIR` path. (There is no backup made when simply doing a version 9.X to 9.X version or mod level upgrade.)

If you need to go back to Version 8 for any reason, this can easily be accomplished. First stop Tomcat before you proceed.

- Move the newer H2 database created from v9.5 to a backup location
- Unzip the `MMVersion8Backup.zip` file
- Navigate to the Webapps directory of Tomcat
- Delete the MMPI directory
- Replace the `MMPI.war` file with the war file you backed up from version 8
- Restart Tomcat



E. Applying the License

Obtaining MAC Address

If this is new install or you upgraded to a new version of MarkMagic PI (Example 9.1 -> 9.5), a new license key will be required.

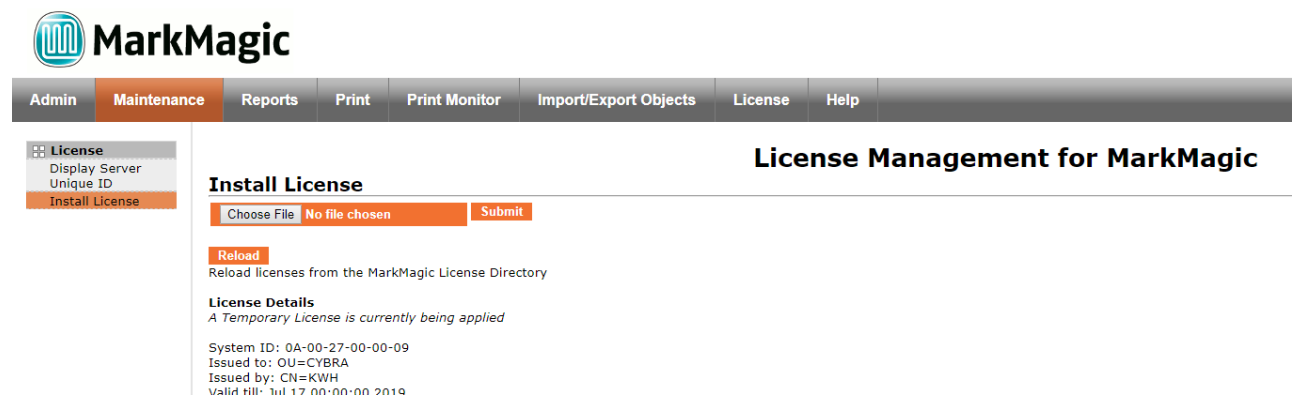
Once signed into the system, you will need to apply the license file given to you by CYBRA.

In order to get a license from CYBRA, you will need to provide CYBRA with your MAC address for the system. The license will be emailed to you in the form of a *.lic file. On the top grey bar, click on the **License** option. You will then see more options displayed on the left of the screen below the grey bar. Click on the **Display Server Unique ID** if you need to get your MAC address.



Installing the License File

Click on the **Install License** button. This is where you can apply your new license. Click the “Browse” button and find the file that was given to you by CYBRA and then click “Submit”. When the license is loaded correctly, after you press submit, you will see all license information populated on the screen as shown below. Your license is now installed and you are ready to use MarkMagic PI 9.5!



The screenshot shows the MarkMagic web application interface. At the top is the MarkMagic logo. Below it is a navigation bar with tabs: Admin, Maintenance (selected), Reports, Print, Print Monitor, Import/Export Objects, License, and Help. On the left side, there is a sidebar menu with options: License (selected), Display Server, Unique ID, and Install License. The main content area is titled "License Management for MarkMagic". It contains an "Install License" section with a "Choose File" button (labeled "No file chosen") and a "Submit" button. Below this is a "Reload" button and the text "Reload licenses from the MarkMagic License Directory". The "License Details" section shows the following information: "A Temporary License is currently being applied", "System ID: 0A-00-27-00-00-09", "Issued to: OU=CYBRA", "Issued by: CN=KWH", and "Valid till: Jul 17 00:00:00 2019".

F. JMagic Installation

You can load JMagic 9 on *any* PC running Windows NT, 2000, XP, Vista, Windows 7, Windows 8 and Windows 10.

Minimum Hardware Requirements:

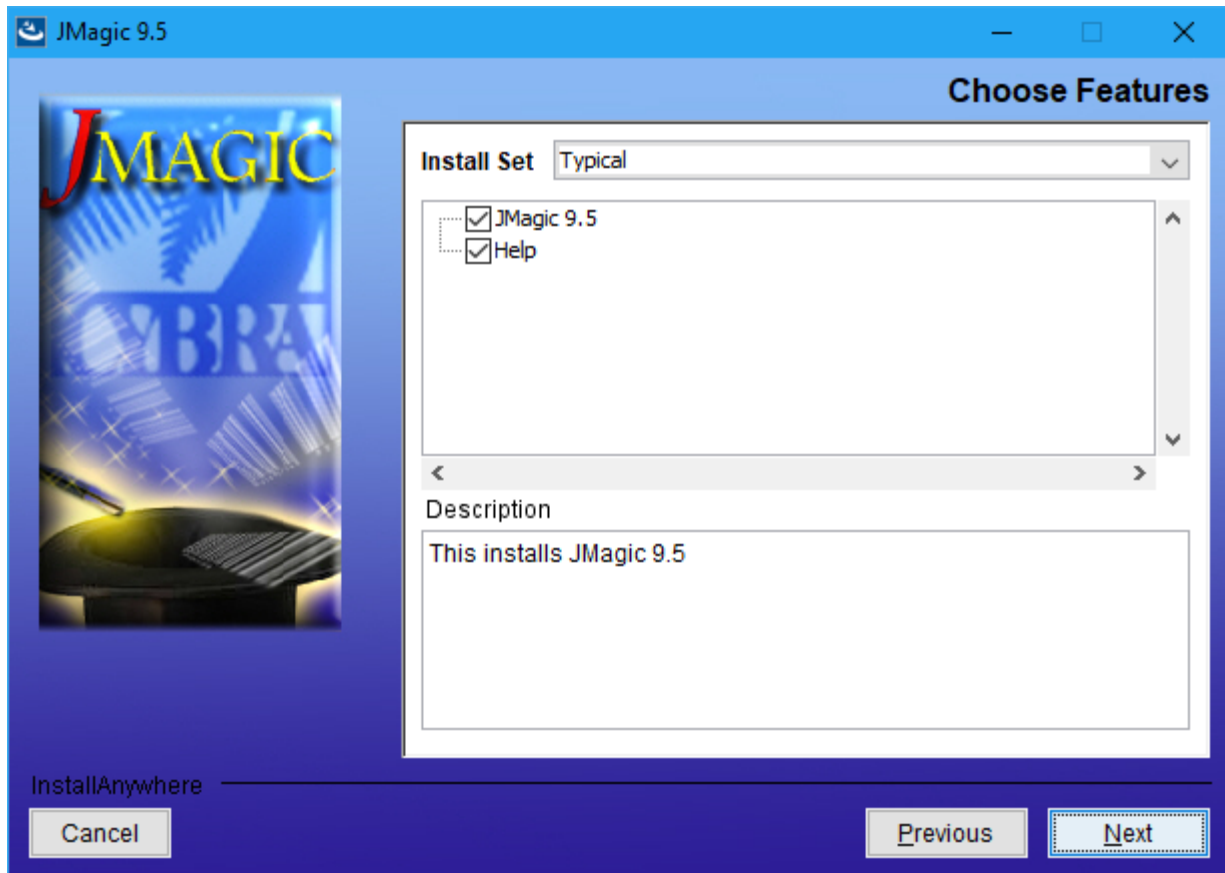
Processor	1.5 GHz Intel Pentium IV, or higher
Display	SVGA, 1152x864 (recommended minimum resolution)
Memory requirements	512MB RAM
Disk space requirements	150 MB for JMagic 70 MB for Java Virtual Machine

Note: To use JMagic 9.5, MarkMagic PI version 9.5 must be active.

Download JMagic95 install zip file from our website and extract the enclosed file to a temporary subdirectory.

Double click the JMagic95 executable file found within to launch the JMagic InstallShield Wizard and follow the prompts. We recommend the “Typical” installation which installs both the JMagic9 application and the MarkMagic9 5250 online help. Note: 5250 Web Help is only used when JMagic is connected to a MarkMagic System i Server (AS/400 database type).

JMagic Installation



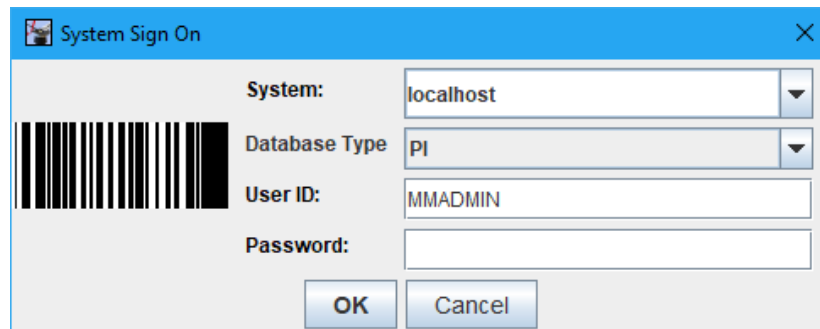
The wizard will prompt you to select an existing subdirectory, or create a default product destination subdirectory, for example: “X”:\Program Files\CYBRA Corporation\JMagic 9.5. (Where “X” is your drive letter) as well as the Follow the steps to complete the installation.

Default Install Log Location: “X”:\CYBRA Corporation\JMagic 9.5\Uninstall_JMagic 9.5\Logs

Navigate to the Start menu Programs folder, then CYBRA Corporation, and then click on the icon “JMagic 9.5” to start JMagic. Sign on to the MMPI System (localhost or MMPI server IP address) to initiate communications with MarkMagic 9.5.

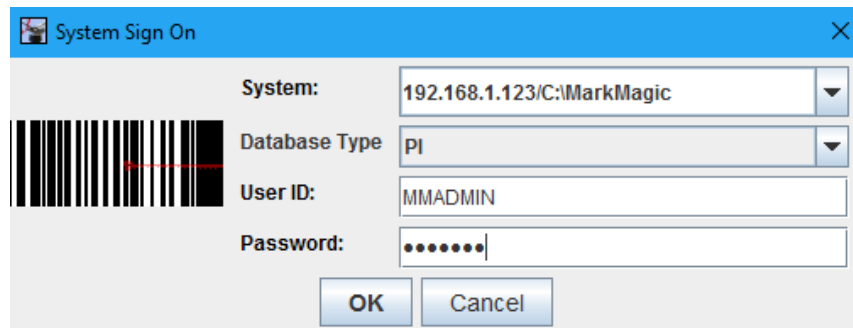
Starting JMagic

If you are connecting to an installation of MMPI that is running on the same system as the one you have JMagic installed on, then you can simply put localhost for the “System:” parameter at logon:



A screenshot of the 'System Sign On' dialog box. The 'System:' dropdown menu is set to 'localhost'. The 'Database Type' dropdown menu is set to 'PI'. The 'User ID' text box contains 'MMADMIN'. The 'Password' text box is empty. There are 'OK' and 'Cancel' buttons at the bottom right. A barcode is visible on the left side of the dialog.

MMPI ships with two default user IDs/PWs mmadmin/mmadmin and mmuser/mmuser. We recommend a system admin create/edit user accounts for their organization via the MMPI Web admin interface.



A screenshot of the 'System Sign On' dialog box. The 'System:' dropdown menu is set to '192.168.1.123/C:\MarkMagic'. The 'Database Type' dropdown menu is set to 'PI'. The 'User ID' text box contains 'MMADMIN'. The 'Password' text box contains seven dots. There are 'OK' and 'Cancel' buttons at the bottom right. A barcode is visible on the left side of the dialog.

If you are trying to connect to an installation of MMPI that is on a different machine than the one you are running JMagic on, then you need to specify the **IP ADDRESS** as well as the **path to the H2 database**.

Example:

System: 192.168.1.123/C:\MarkMagic