

MarkMagic PI 10.0 and JMagic 10.0



MarkMagic By CYBRA

Support: 914-963-6600 Option 4 • Fax: 716-712-0666 • help@CYBRA.com



We identify with success.

Table of Contents

A. Intro to MarkMagic PI 10.0	3
B. Installation of MarkMagic PI 10.0	4
MarkMagic PI Windows Installation	5
MarkMagic PI Linux Installation	15
C. Starting and Stopping the MarkMagic PI Service	31
Starting and Stopping the MarkMagic PI Service in Microsoft Windows	31
Starting and Stopping the MarkMagic PI Service in Linux	33
D. Connect to the MMPI Web App	34
E. Applying the License	35
F. JMagic 10.0 Installation	37
JMagic Installation	38
Starting JMagic	39

A. Intro to MarkMagic PI 10.0

CYBRA has now made it much easier to install and run MarkMagic PI. MMPI 10.0 now ships as its own standalone installer with Apache Tomcat built in! It is the exact same MMPI product experience that you are used to running within a separate third-party web application server, except now, MarkMagic PI Standalone runs as its' own service.

MarkMagic PI allows you to manage your MarkMagic environment through a web interface. You can print, monitor a directory for input data, maintain MarkMagic users and printers, plus more through the MarkMagic PI web portal. All you need is a web browser!

MarkMagic PI Windows and Linux installation files and documentation are available via download from the CYBRA website:

www.CYBRA.com

B. Installation of MarkMagic PI 10.0

The link to download MarkMagic PI 10.0 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. Inside, you will find either the 64bit Windows based installer or the BIN Linux installer depending on the download you chose. If you require a 32bit Windows installer package, please contact CYBRA Support.

Prerequisites / Requirements

Java - CYBRA bundles 64bit Java runtime version 11 with the installer package.

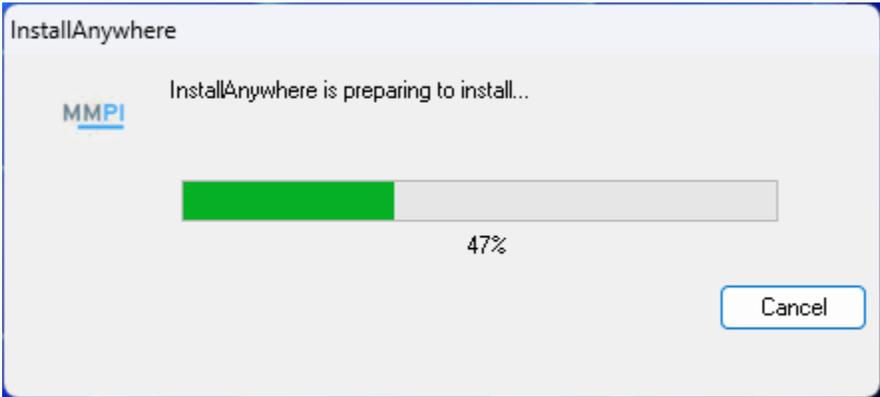
The base installation of MarkMagic PI is about 100MB and will gradually grow from there as you design more labels and forms.

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 MMPI memory settings for high volume printing situations.

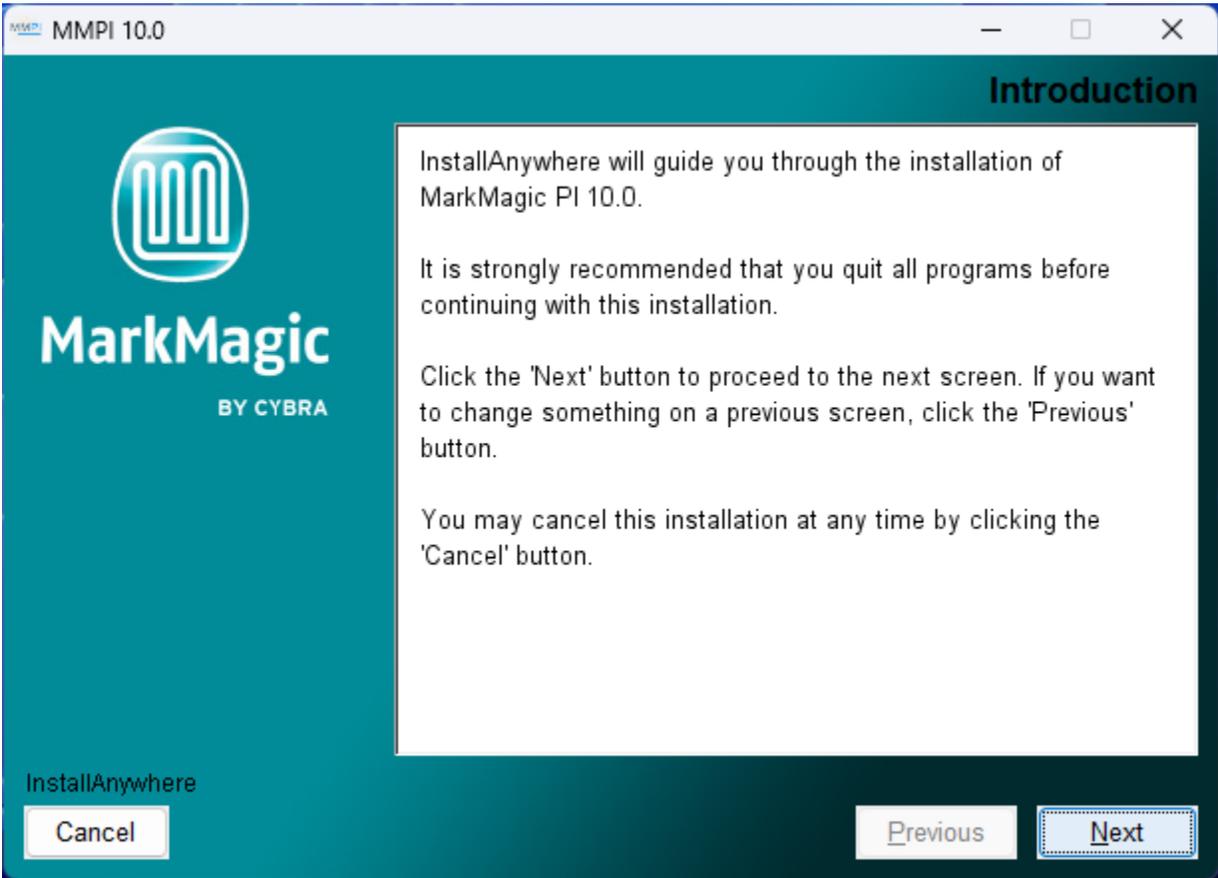
In the next sections, we will discuss **NEW** installations of MarkMagic PI version 10.0 in Microsoft Windows and Linux. For users that have existing installations of MarkMagic PI version 9.5 or earlier, please contact CYBRA Support help@cybra.com for upgrade assistance.

MarkMagic PI Windows Installation

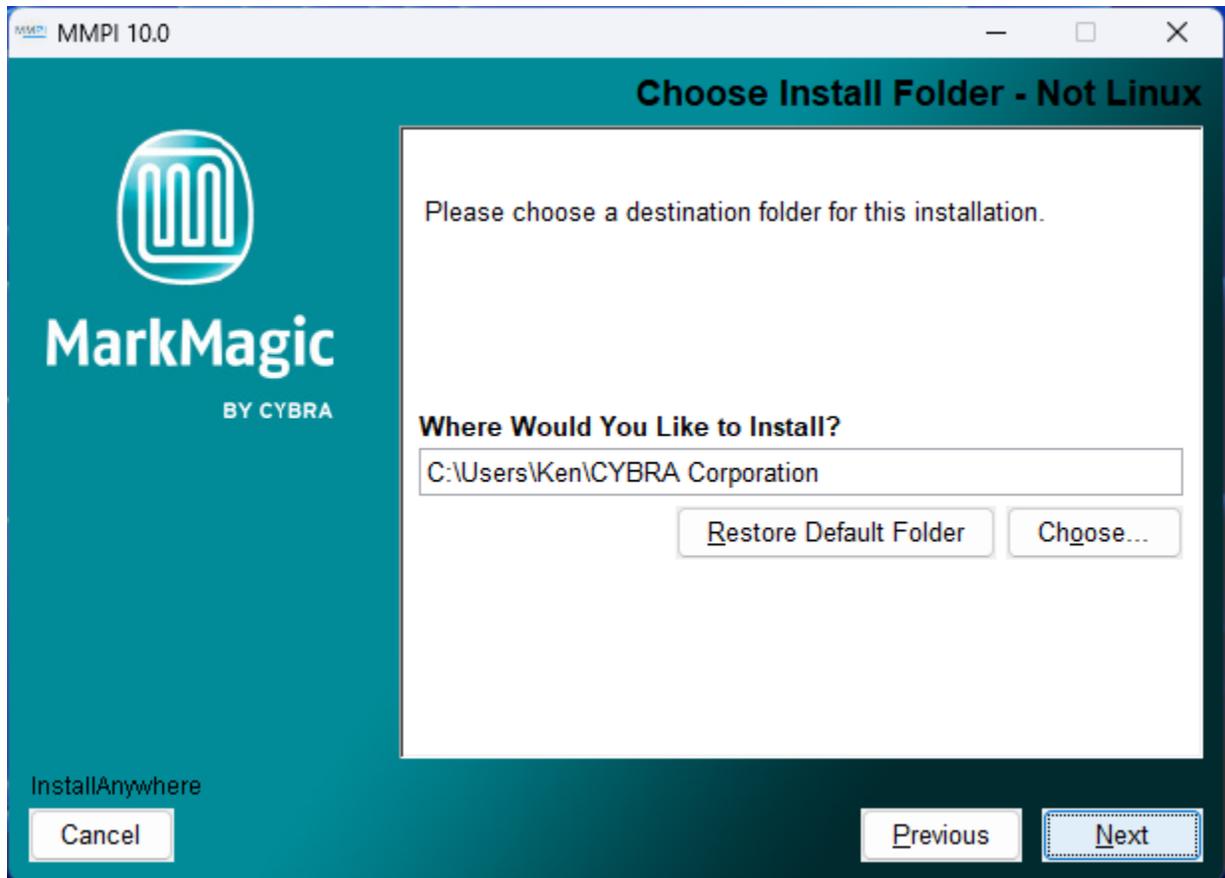
Locate the Windows MMPI Standalone installer exe that you downloaded from www.CYBRA.com. Double click to run the installer.



Welcome to the MarkMagic PI 10.0 Windows Installer:

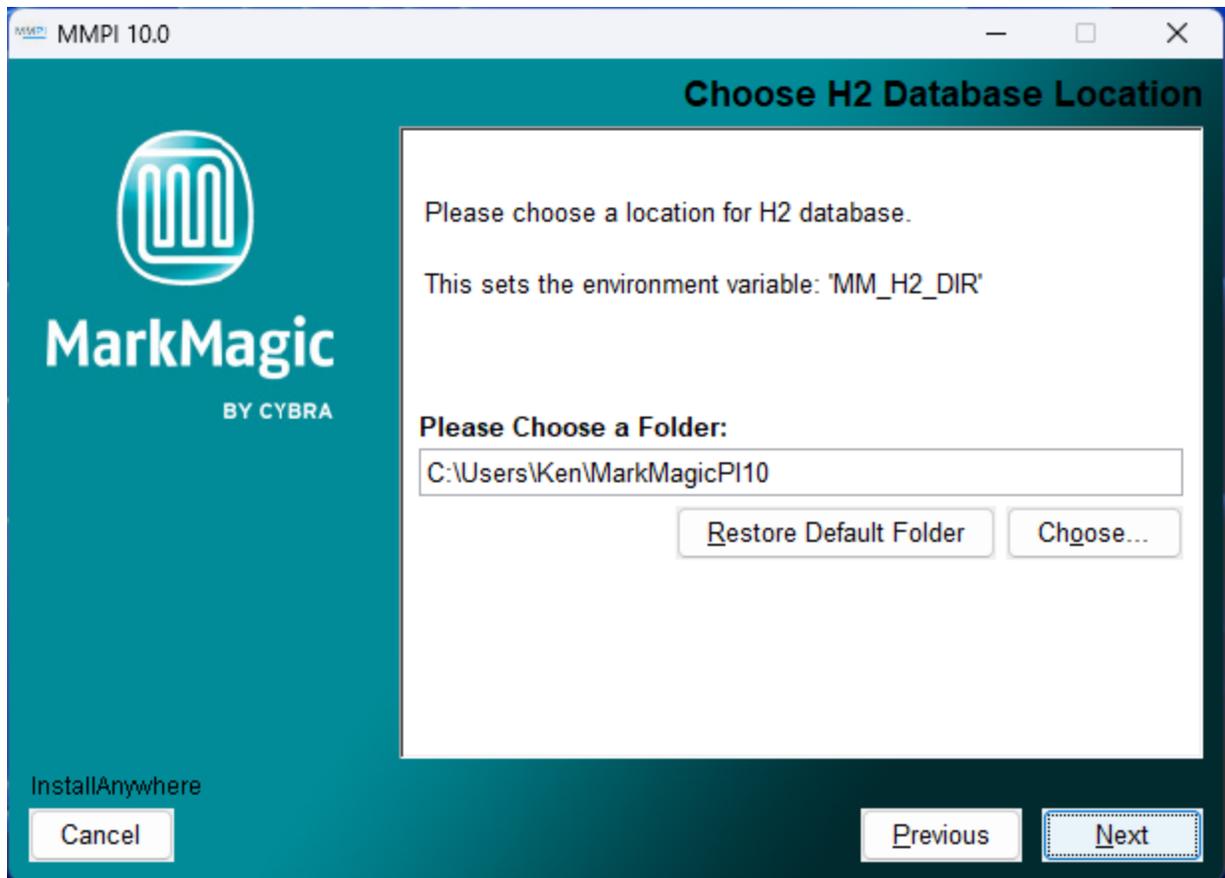


Proceed through the initial screens and you will be asked for the destination folder where MarkMagic PI 10.0 will be installed.



You can choose to keep it as the default path or provide your own custom path. This is the location where the core MarkMagic PI server files will be installed. Proceed to the next step...

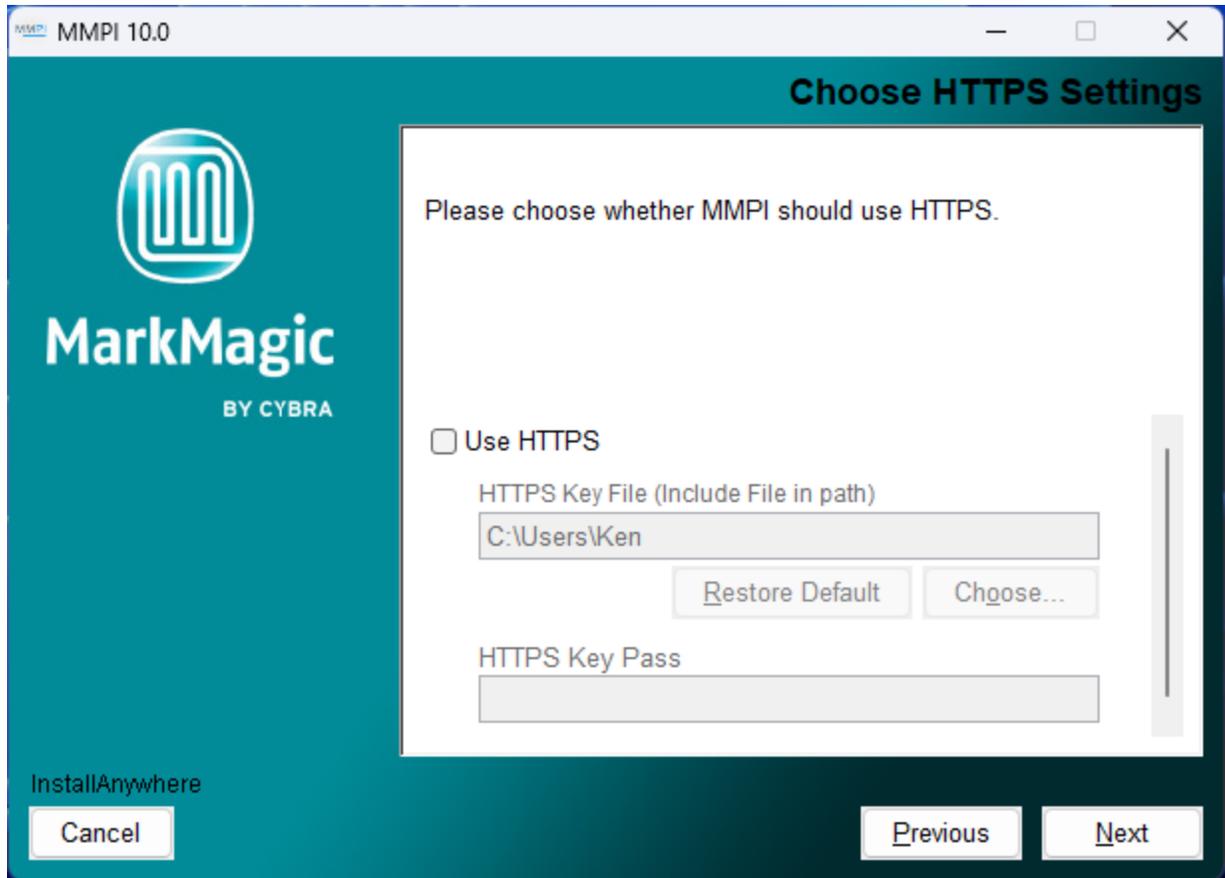
You will be asked to set the path for the location of the H2 Database.



The path you choose here will create a Windows 'MM_H2_DIR' environment variable. The default location provided is ideal as it is a location that the MMPI Windows service should have read/write access to. If a different path is desired, specify that here. Please note that the MMPI service must have read/write access to this path.

When the MMPI server starts for the first time, it will create a fresh MARKMAGIC.h2.db file in this location. Think of this path as the main MarkMagic PI Data location. Log files, custom fonts, print queues, etc. will all be created and stored here by the MMPI service.

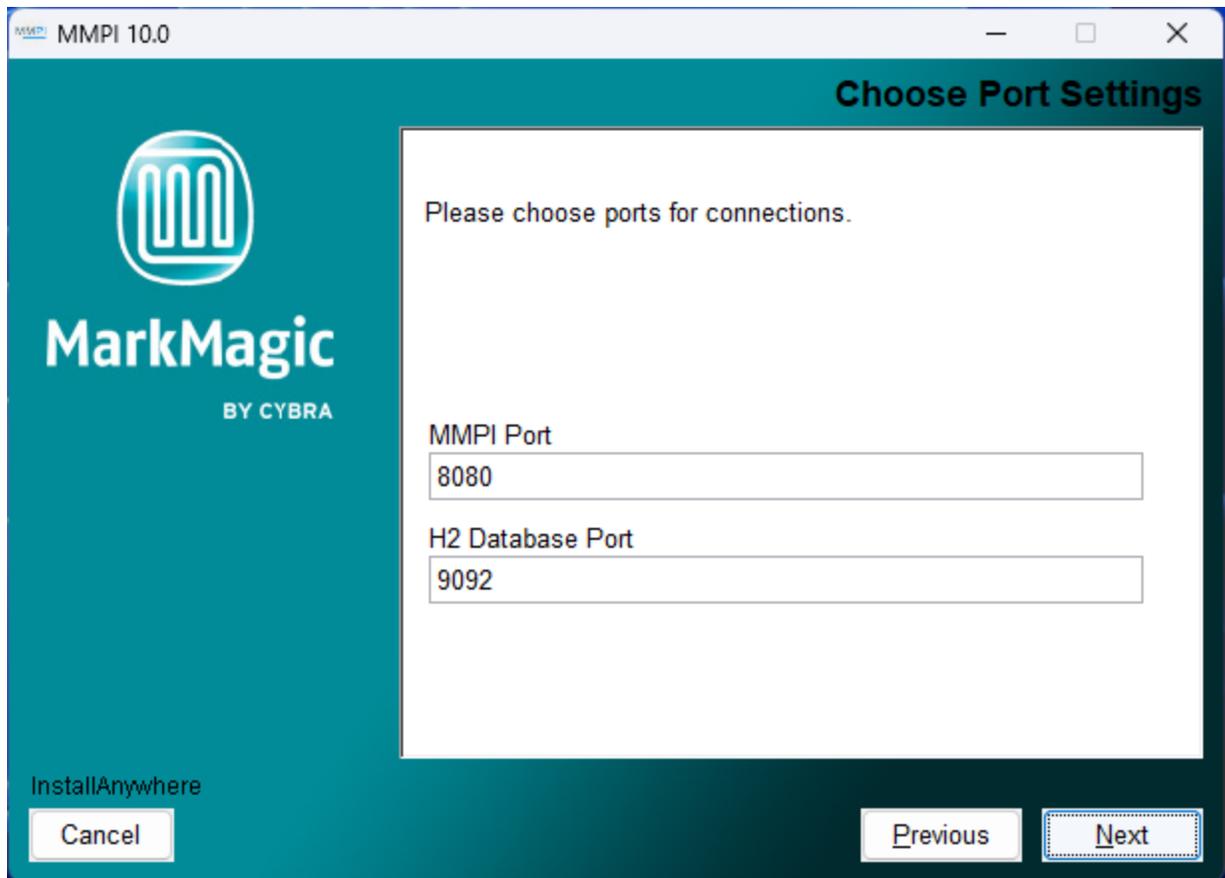
Proceed to the next step where you can choose to configure HTTPS if it is a requirement in your network environment...



If you do not wish to use HTTPS, then skip this step. If you do plan to use HTTPS, enable the check box. Set the path to where you keep your HTTPS Key File. (Consult your system administrator if you do not know what this is.)

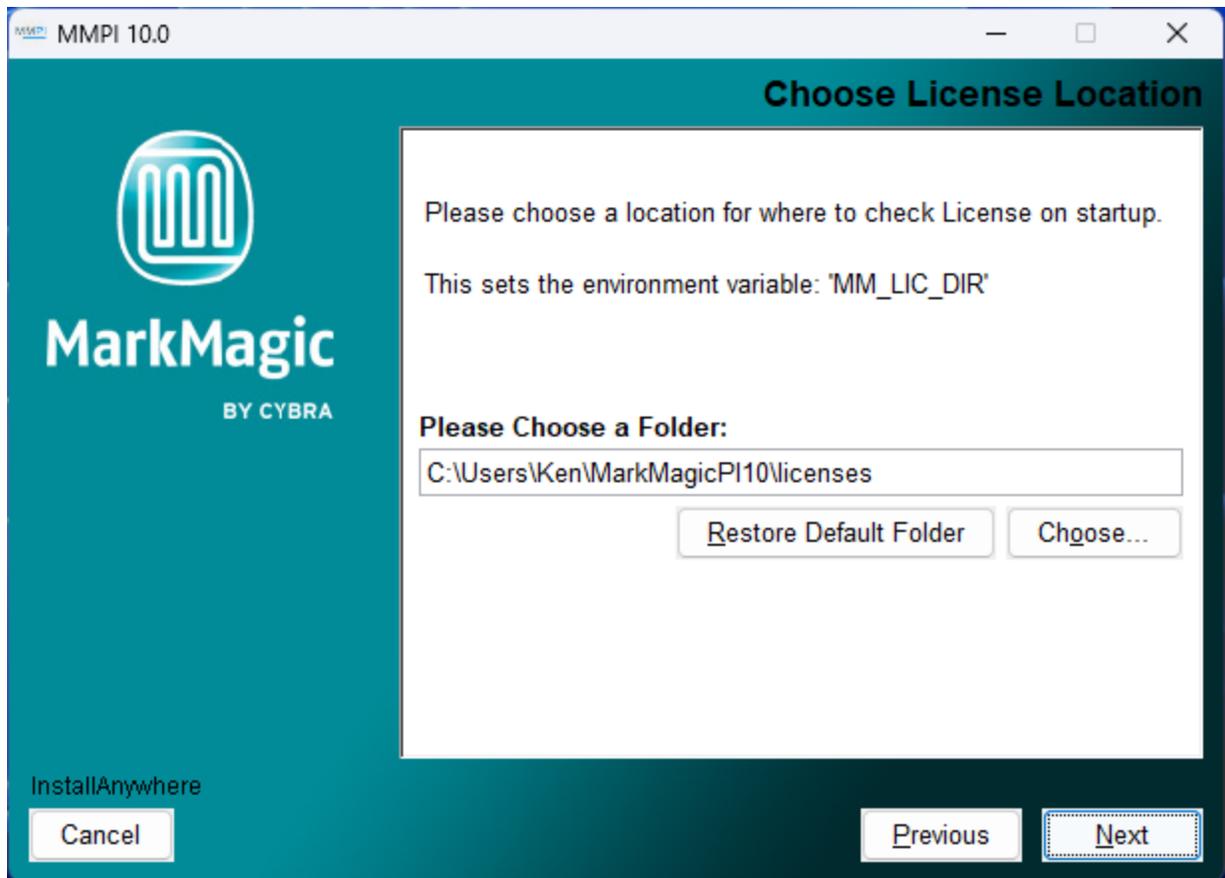
Also, on this screen, provide your HTTPS Key Pass. (Consult your system administrator if you do not know what this is.)

Click 'Next' and you will be asked to configure the MMPI default ports...



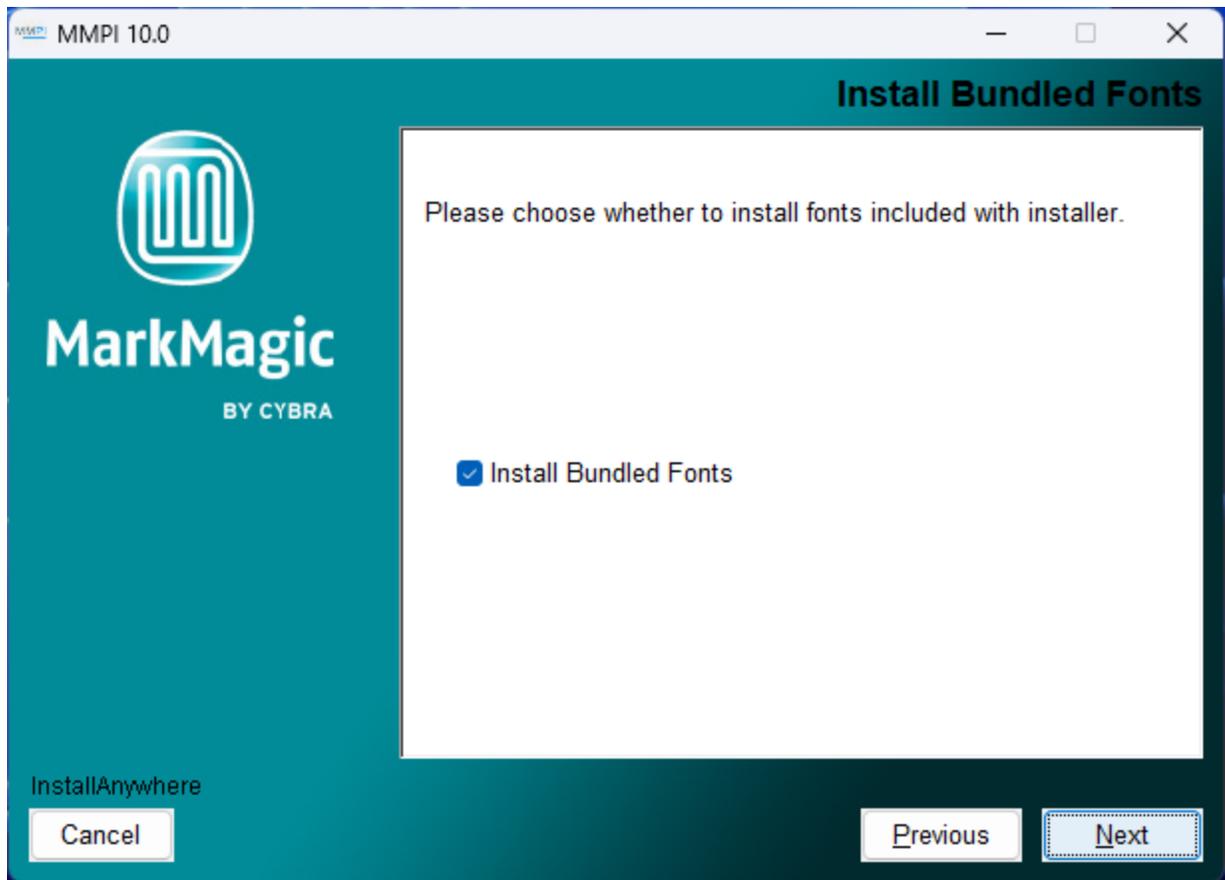
Only in certain unique network environments would you need to change these port values from their default. For example, if you plan to run two instances of Apache Tomcat on the same server, you might need to specify a different port here. Though, in a typical MarkMagic PI installation, these values can be kept as the default.

Proceed to the next step where you can define where MarkMagic PI will search for license files...

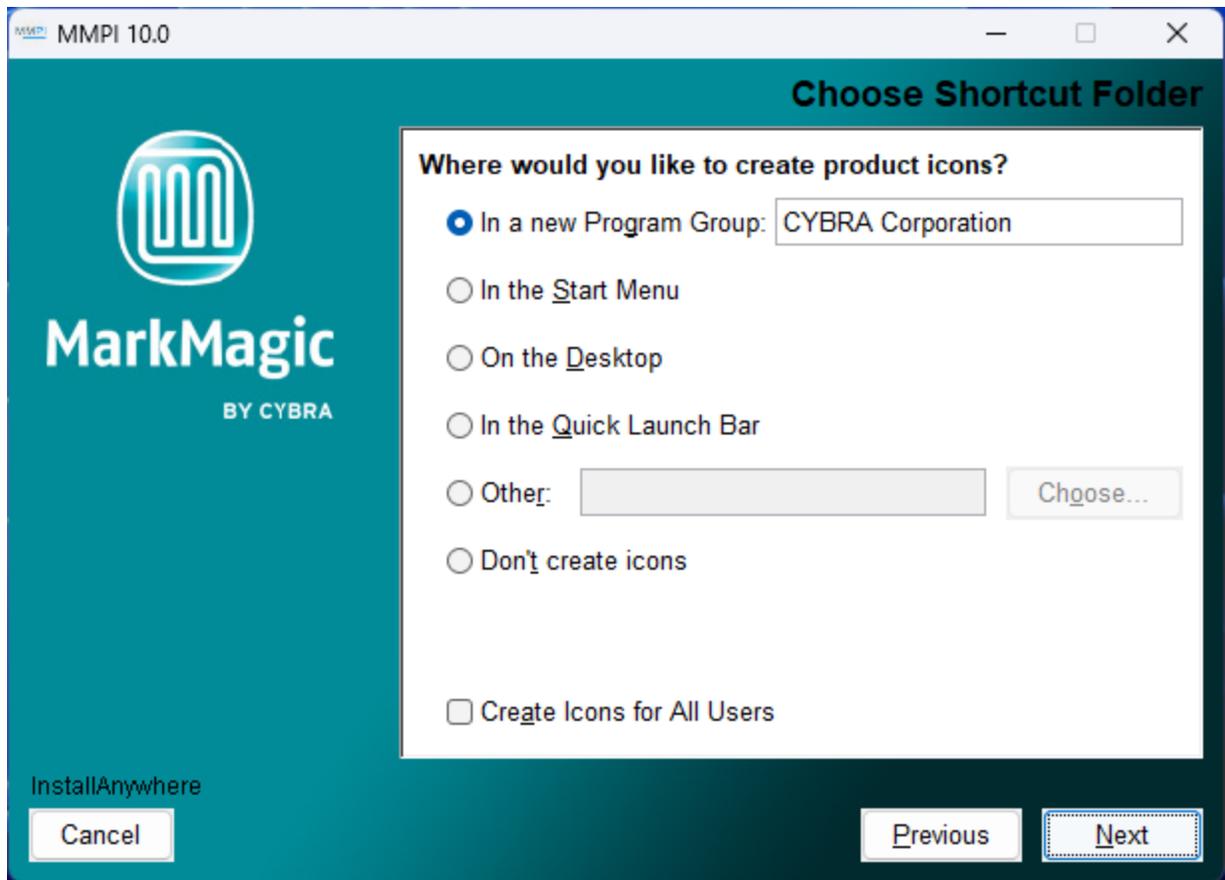


The path you choose here will create a Windows 'MM_LIC_DIR' environment variable. MarkMagic PI has a feature where upon server startup, it can automatically detect and load license files provided to you by CYBRA. This is the path where MarkMagic PI will search for the license files. Though this location can be customized, it is recommended to keep the default path “../licenses” within the previously defined 'MM_H2_DIR' path.

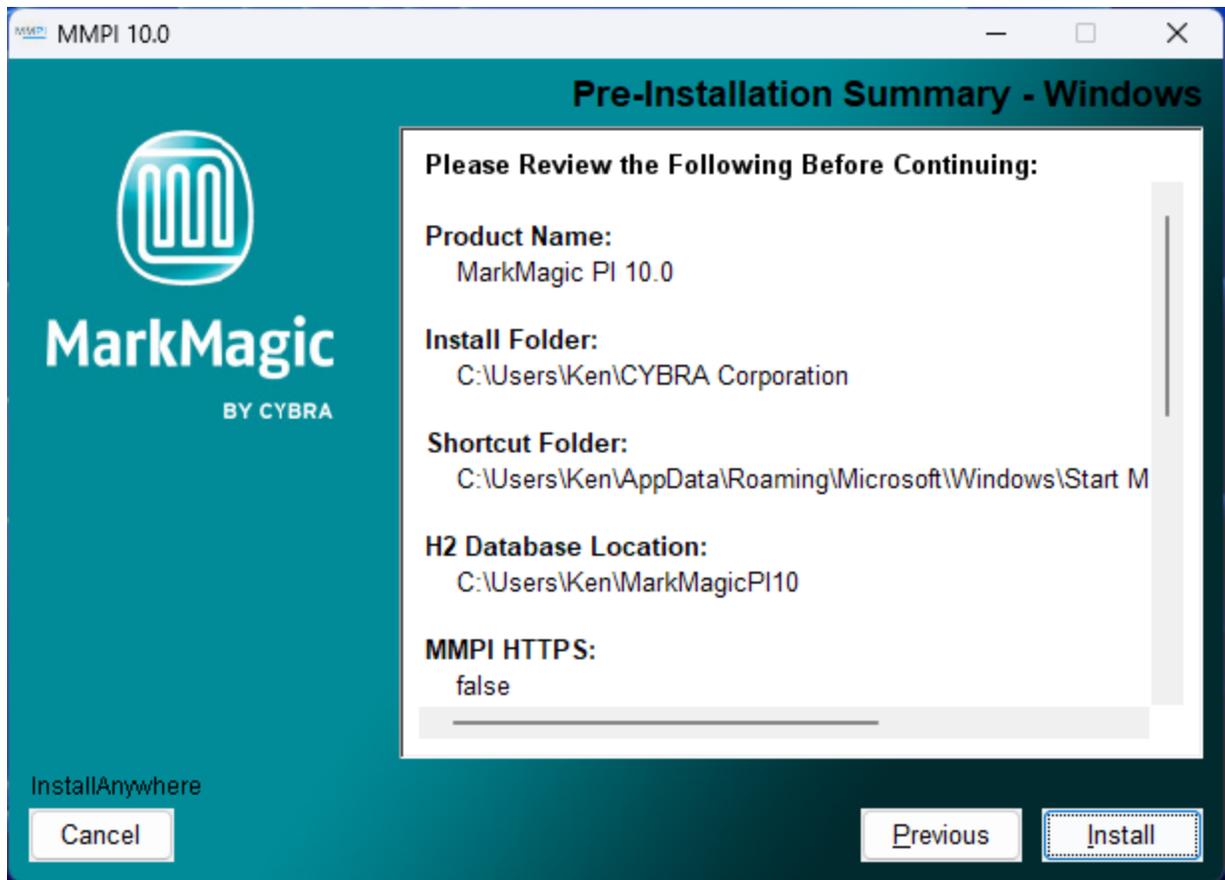
Click next and you will be asked if you wish to install the bundled fonts. This is very important if you plan to use MarkMagic PI to create PDF output. It is recommended to leave this option checked.



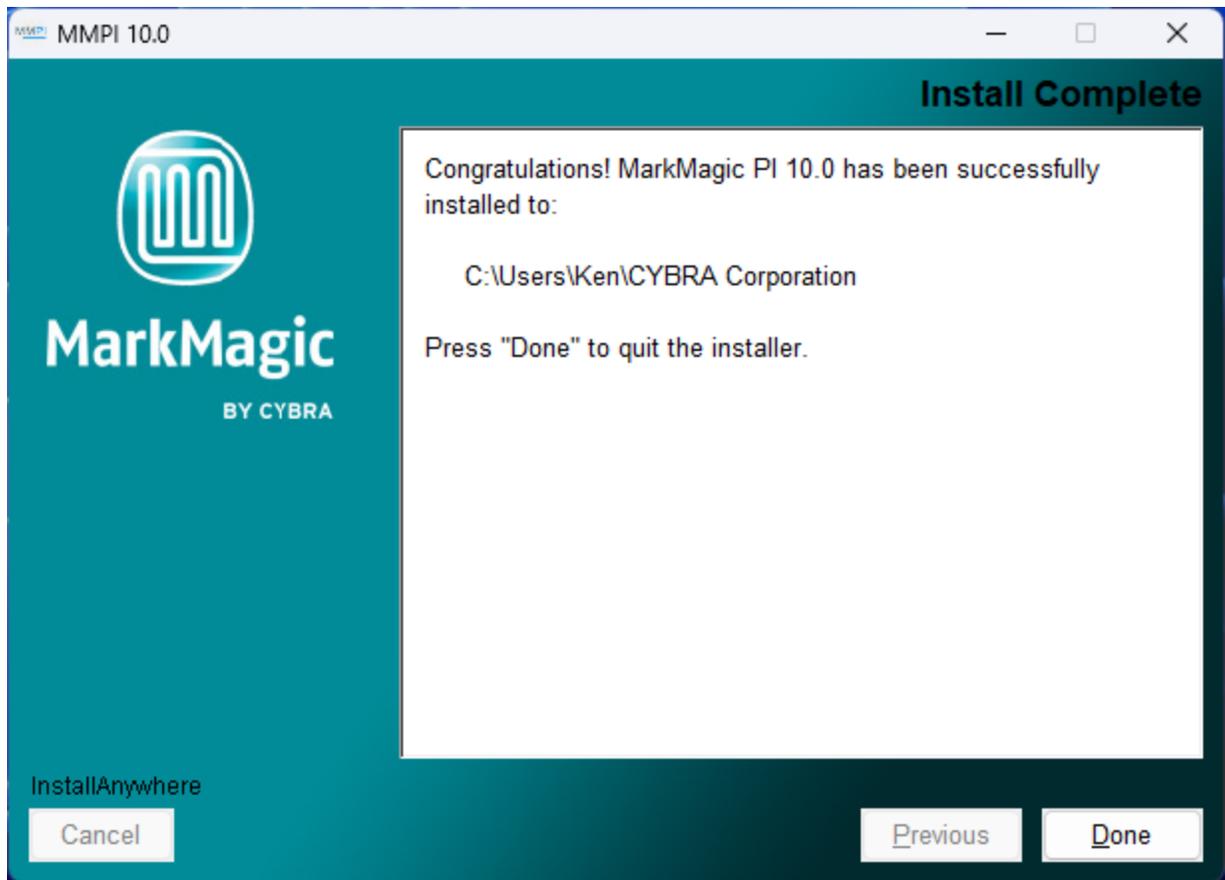
Click next and you can choose where Start Menu links and program shortcuts will be placed...



After making your decision, click next and you will be brought to the installation overview...



Click 'Install' to install MarkMagic PI!



MarkMagic PI is now installed! Click Done to exit the installer. You can move to the next section of the install guide where we will discuss starting, connecting to, and managing the MarkMagic PI server.

MarkMagic PI Linux Installation

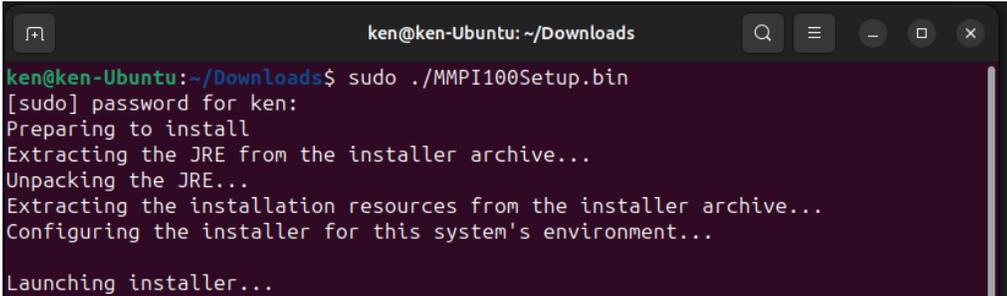
MMPI Install in a Graphical Desktop Environment:

Follow these steps if your Linux OS uses a graphical window manager. Full command line installation instructions are provided later in the guide.

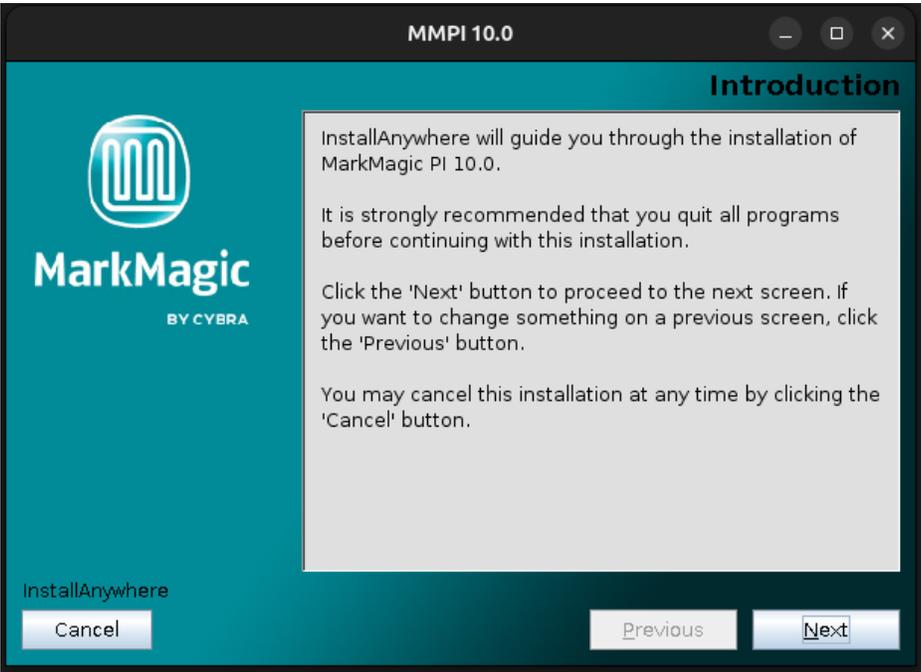
Open a terminal session and then navigate to the directory where you downloaded the MMPI Linux installer BIN file from www.CYBRA.com.

Run the MMPI installer with super user authority:

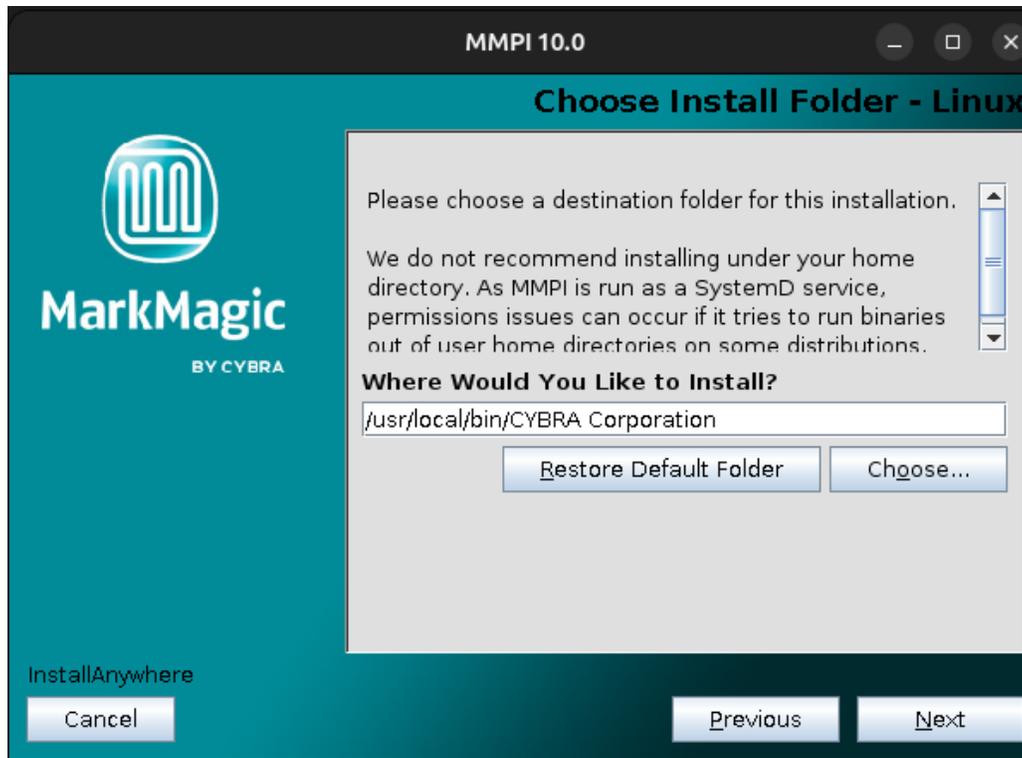
```
sudo ./MMPI100Setup.bin
```



Welcome to the MarkMagic PI 10.0 Linux Installer:



Proceed through the initial screens and you will be asked for the destination folder where MarkMagic PI 10.0 will be installed.

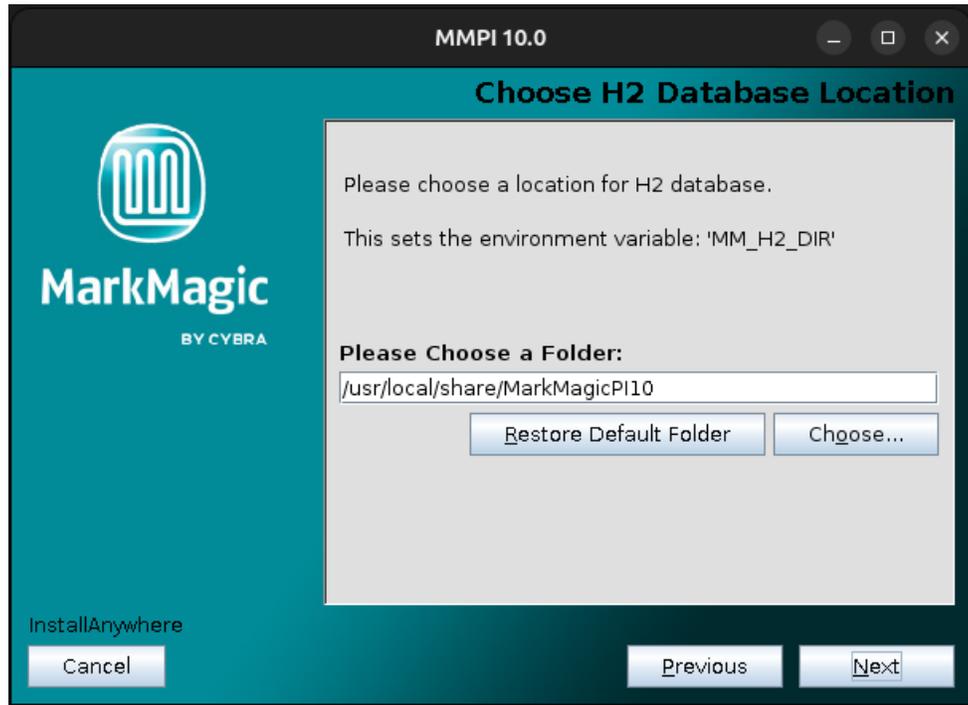


This is the location where the core MarkMagic PI server files will be installed. It is recommended to keep the default path, but if a different location is desired, please choose a path that is not located within a users' /home and one that SystemD has read & write access to. Click 'Next' to configure the Java runtime.

As noted earlier in the install guide, the MarkMagic PI installer ships with Java runtime version 11 and will use this as the default java runtime. If you prefer to use your own installation of java, please specify the path to the JRE here and click 'Next'.



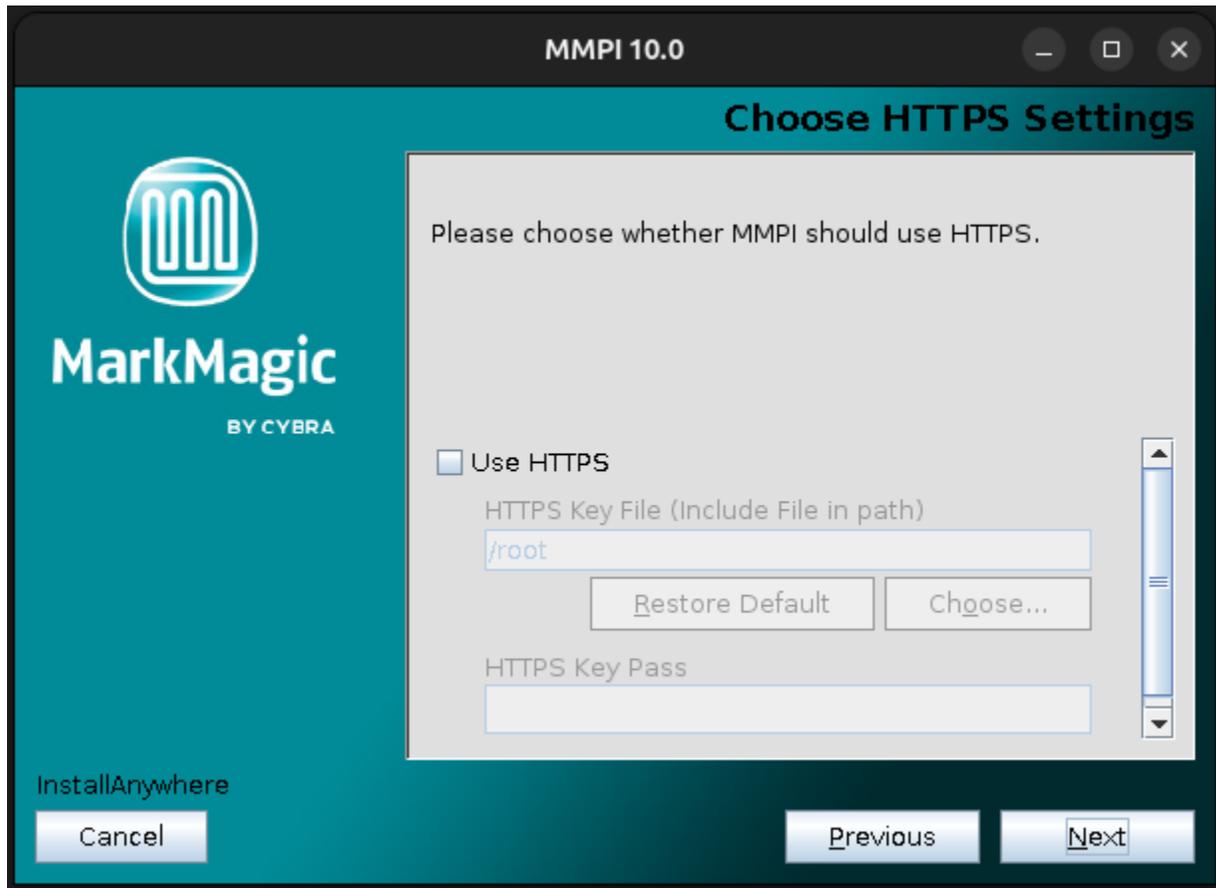
The next screen allows you to define the path to the MarkMagic PI H2 database.



The path you choose here will set the Linux 'MM_H2_DIR' environment variable. The default location within the /usr/local/share directory is ideal as it is a location that the MMPI SystemD service should have read/write access to. If a different path is desired, specify that here. Please note that the MMPI service running via SystemD must have read/write access to this path.

When the MMPI server starts for the first time, it will create a fresh MARKMAGIC.h2.db file in this location. Think of this path as the main MarkMagic PI Data location. Log files, custom fonts, print queues, etc. will all be created and stored here by the MMPI service.

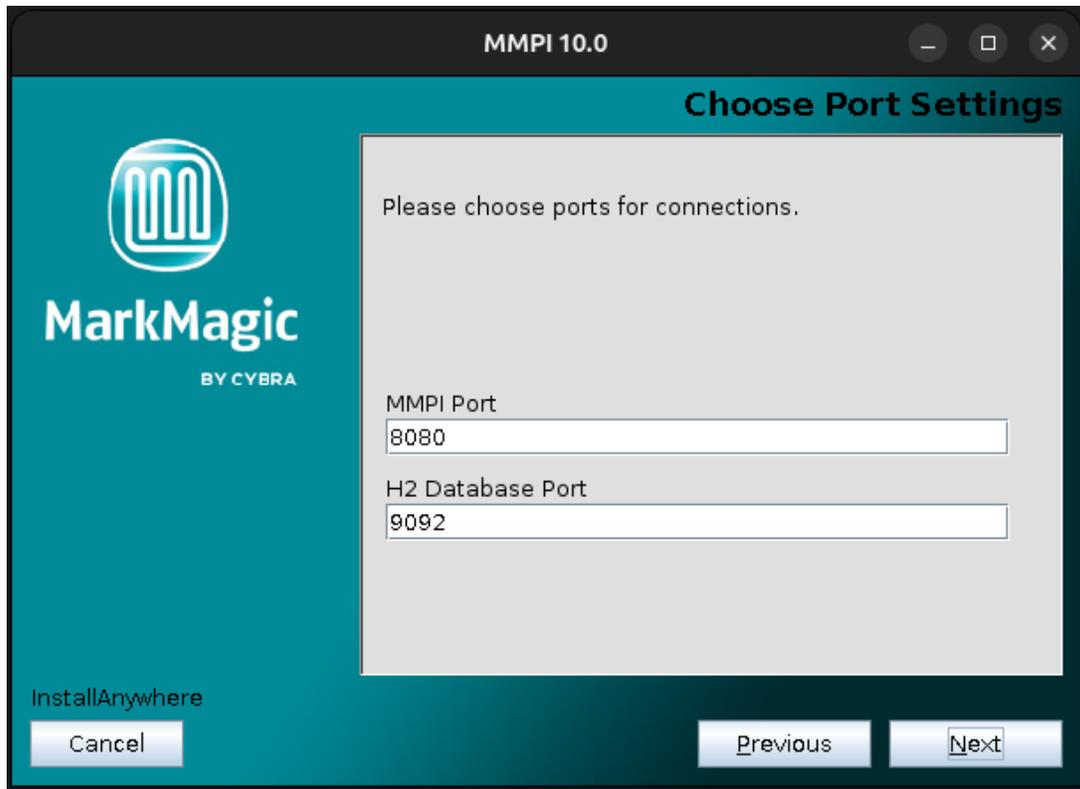
Proceed to the next step where you can choose to configure HTTPS if it is a requirement in your network environment...



If you do not wish to use HTTPS, then skip this step. If you do plan to use HTTPS, enable the check box. Set the path to where you keep your HTTPS Key File. (Consult your system administrator if you do not know what this is.)

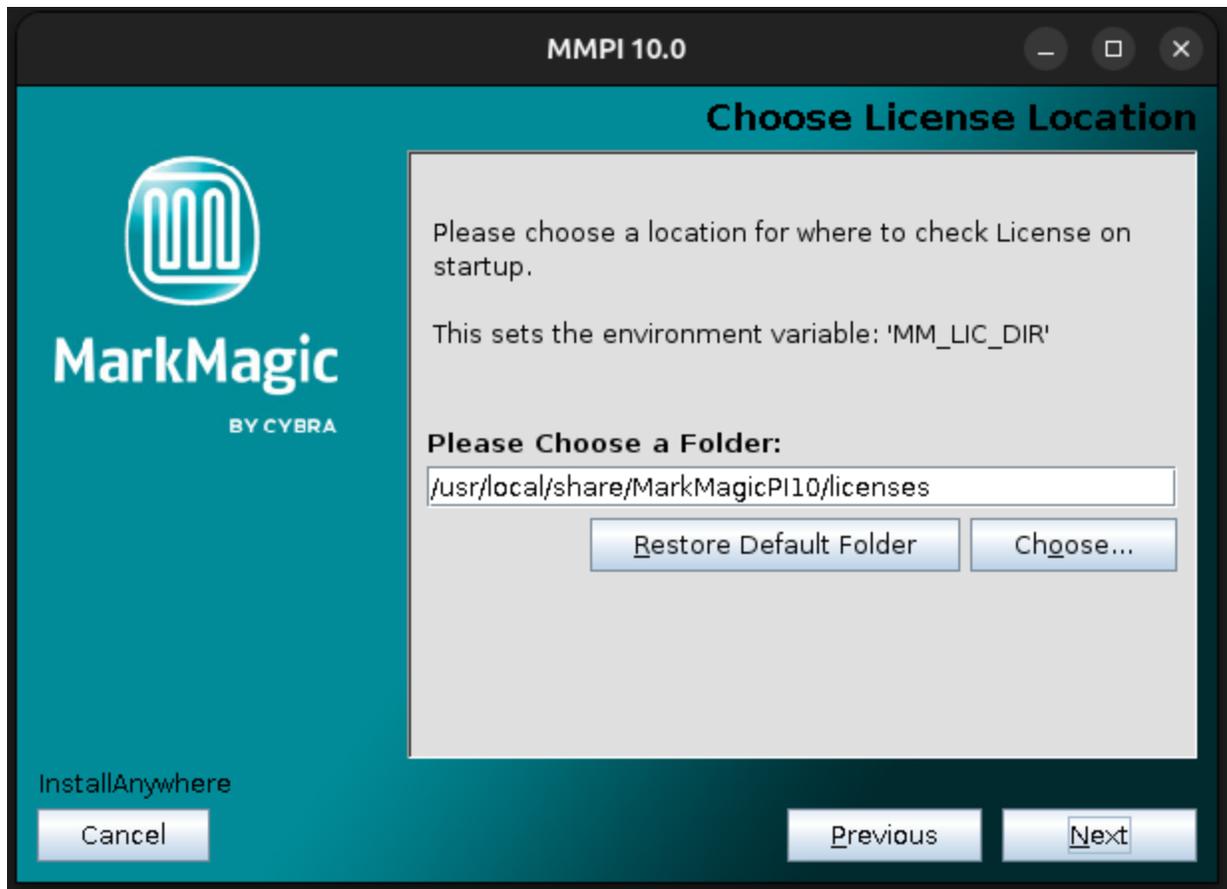
Also, on this screen, provide your HTTPS Key Pass. (Consult your system administrator if you do not know what this is.)

Click 'Next' and you will be asked to configure the MMPI default ports...



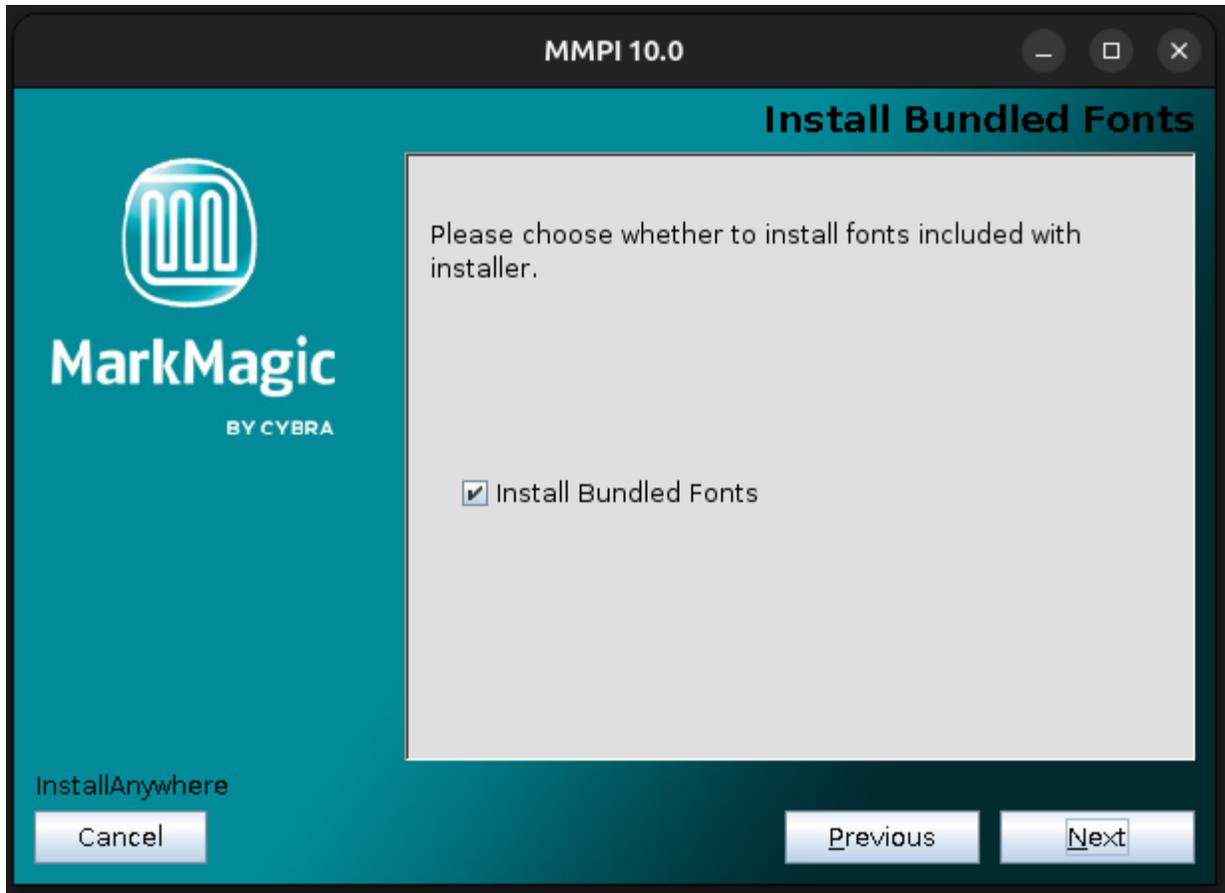
Only in certain unique network environments would you need to change these port values from their default. For example, if you plan to run two instances of Apache Tomcat on the same server, you might need to specify a different port here. In a typical MarkMagic PI installation, these values can be kept as the default.

Proceed to the next step where you can define where MarkMagic PI will search for license files...

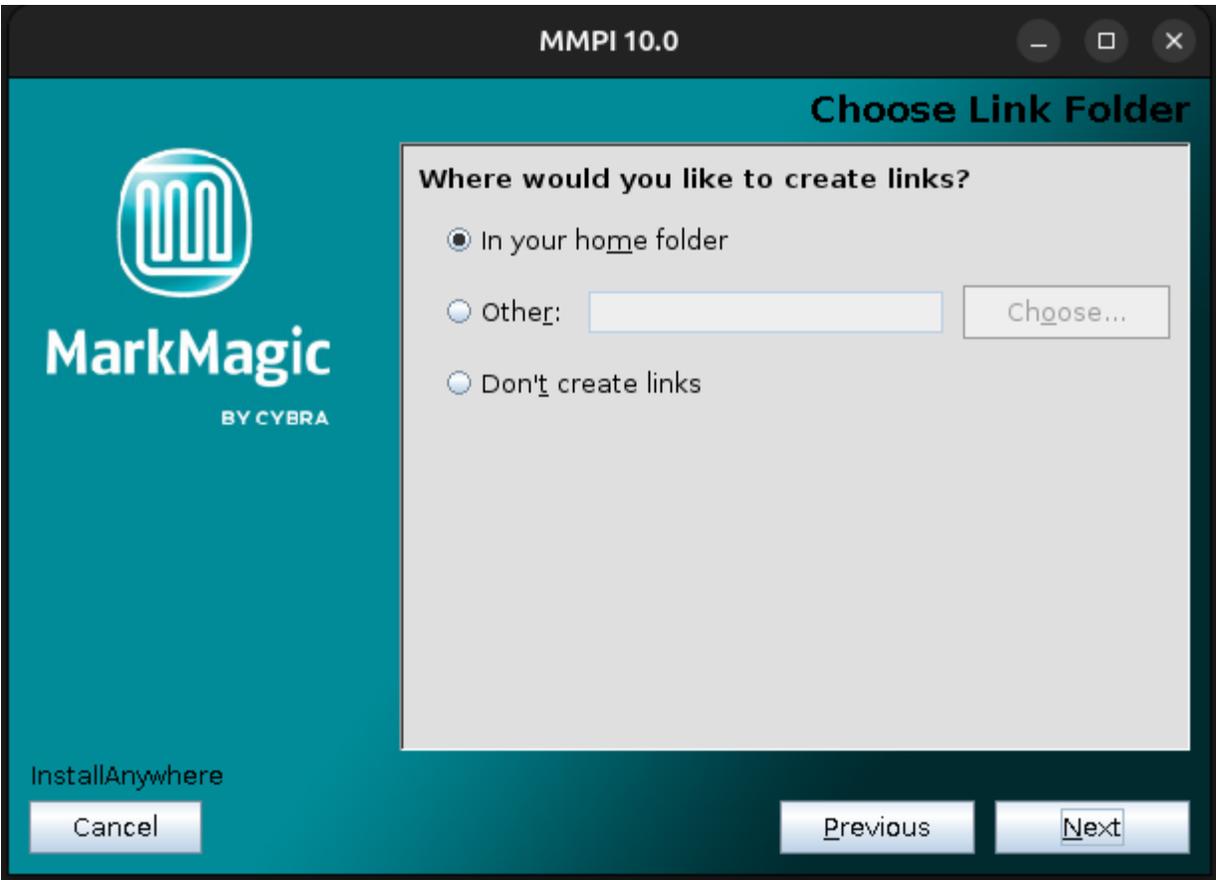


The path you choose here will set the Linux ‘MM_LIC_DIR’ environment variable. MarkMagic PI has a feature where upon server startup, it can automatically detect and load license files provided to you by CYBRA. This is the path where MarkMagic PI will search for the license files. Though this location can be customized, it is recommended to keep the default path “../licenses” within the previously defined ‘MM_H2_DIR’ path.

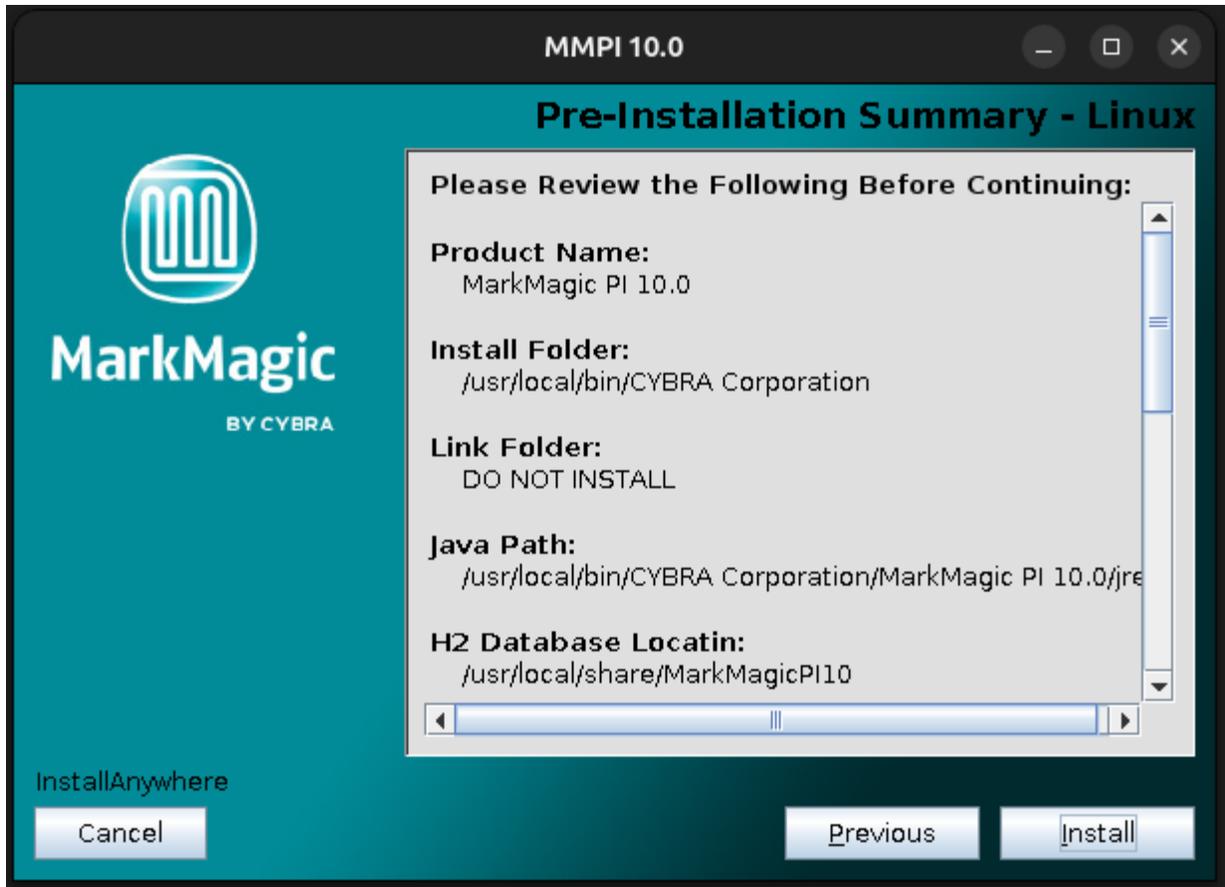
Click next and you will be asked if you wish to install the bundled fonts. This is very important if you plan to use MarkMagic PI to create PDF output. It is recommended to leave this option checked.



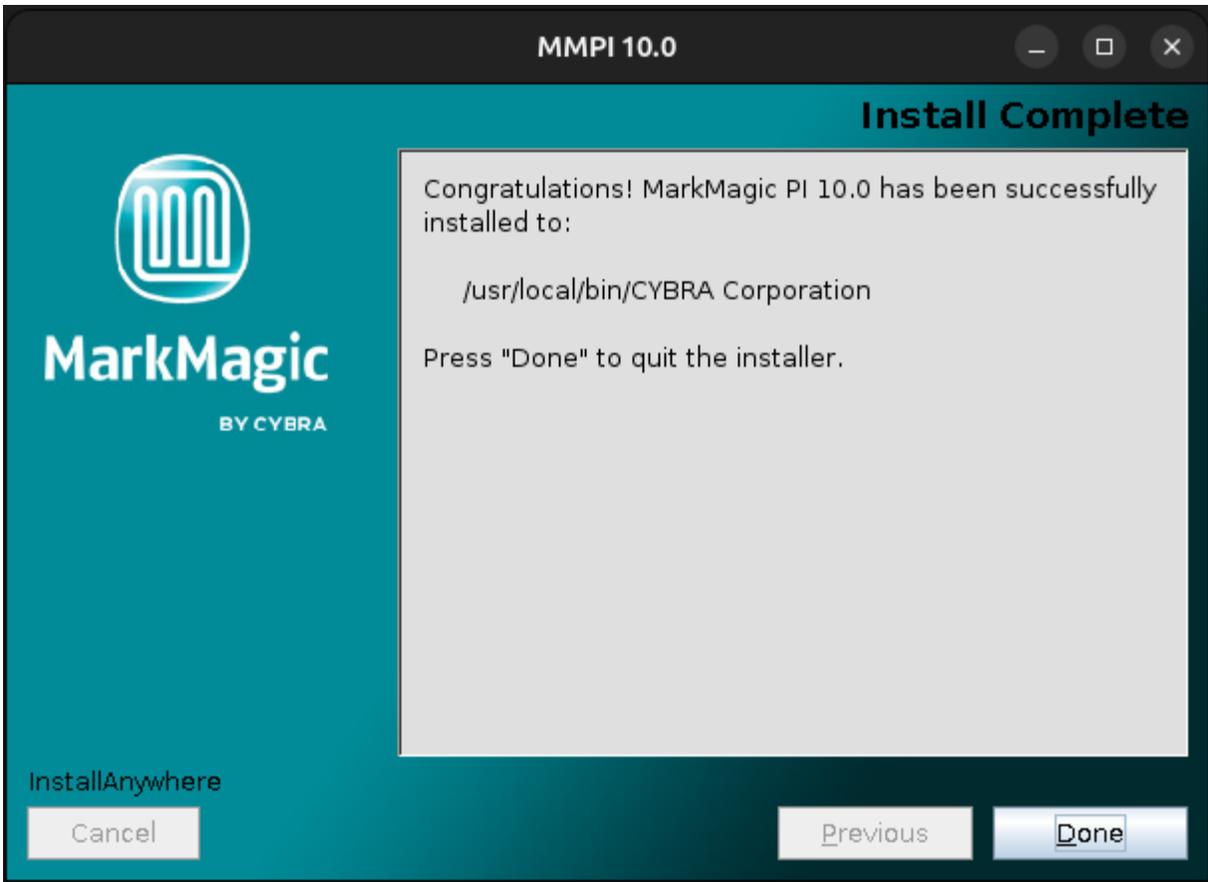
Click next and you can choose where program shortcuts will be placed...



After making your decision, click next and you will be brought to the installation overview...



Click 'Install' to install MarkMagic PI 10.0!



MarkMagic PI 10.0 is now installed! Click Done to exit the installer. You can move to the next section of the install guide where we will discuss starting the MMPI service, connecting to, and managing the MarkMagic PI server.

MMPI Install in a Command Line Environment:

Follow these steps if your Linux OS **does not** use a graphical window manager. Full GUI installation instructions are provided earlier in the guide.

Navigate to the directory where you downloaded the MMPI Linux Standalone installer BIN file from www.CYBRA.com.

Run the MMPI installer with super user authority:

```
sudo ./MMPI100Setup.bin
```

```
ken@ken-Ubuntu:~/Downloads$ sudo ./MMPI100Setup.bin
[sudo] password for ken:
Preparing to install
Extracting the JRE from the installer archive...
Unpacking the JRE...
Extracting the installation resources from the installer archive...
Configuring the installer for this system's environment...

Launching installer...

Graphical installers are not supported by the VM. The console mode should be used instead...

=====
MarkMagic PI 10.0                               (created with InstallAnywhere)
=====

Preparing CONSOLE Mode Installation...

=====
Introduction
=====

InstallAnywhere will guide you through the installation of MarkMagic PI 10.0.

It is strongly recommended that you quit all programs before continuing with
this installation.

Respond to each prompt to proceed to the next step in the installation.  If
you want to change something on a previous step, type 'back'.

You may cancel this installation at any time by typing 'quit'.

PRESS <ENTER> TO CONTINUE:
```

Press ENTER to continue through the initial sections and you will be asked for the destination folder where MarkMagic PI 10.0 will be installed.

```
=====
Choose Install Folder - Linux
-----

Please choose a destination folder for this installation.

We do not recommend installing under your home directory. As MMPI is run as a
SystemD service, permissions issues can occur if it tries to run binaries out
of user home directories on some distributions.

Where would you like to install?

  Default Install Folder: /usr/local/bin/CYBRA Corporation

ENTER AN ABSOLUTE PATH, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
:
```

This is the location where the core MarkMagic PI server files will be installed. It is recommended to keep the default path, but if a different location is desired, please choose a path that is not located within a users' /home and one that SystemD has read & write access to. Click 'Next' to configure the Java runtime.

```
=====
Set Java Location
-----

Please set Java location.

  By default, the JRE (version 11) shipped with this installer will be used.
  The minimum is version 8.

Java Path (Default: /usr/local/bin/CYBRA Corporation/MarkMagic PI 10.0/jre)
:
```

As noted earlier in the install guide, the MarkMagic PI installer ships with Java runtime version 11 and will use this as the default java runtime. If you prefer to use your own installation of java, please specify the path to the JRE here and press ENTER.

You will be asked to set the path for the location of the H2 Database.

```
=====
Choose H2 Database Location
-----

Please choose a location for H2 database.

This sets the environment variable: 'MM_H2_DIR'

MM_H2_DIR (Default: /usr/local/share/MarkMagicPI10):
```

The path you choose here will set the Linux ‘MM_H2_DIR’ environment variable. The default location within the “/usr/local/share directory” is ideal as it is a location that the MMPI SystemD service should have read/write access to. If a different path is desired, specify that here. Please note that the MMPI service running via SystemD must have read/write access to this path.

When the MMPI server starts for the first time, it will create a fresh MARKMAGIC.h2.db file in this location. Think of this path as the main MarkMagic PI Data location. Log files, custom fonts, print queues, etc. will all be created and stored here by the MMPI service.

Proceed to the next step where you can choose to configure HTTPS if it is a requirement in your network environment...

```
=====
Choose HTTPS Setting
-----
Please choose whether MMPI should use HTTPS.

  1- true
->2- false

ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:: _
```

If you do not wish to use HTTPS, then leave the option set to false. If you do plan to use HTTPS, choose 1 for true and set the path to where you keep your HTTPS Key File. (Consult your system administrator if you do not know what this is.)

You will also be asked to provide the path to your HTTPS Key Pass. (Consult your system administrator if you do not know what this is.)

Proceed and you will be asked to configure the MMPI default ports...

```
=====
Choose MMPI Port
-----
Please choose a port for MMPI connection.

MMPI Port (Default: 8080):

=====
Choose H2 Database Port
-----
Please choose a port for H2 database connection.

H2 Database Port (Default: 9092): _
```

Only in certain unique network environments would you need to change these port values from their default. For example, if you plan to run two instances of Apache Tomcat on the same server, you might need to specify a different MMPI port here. In a typical MarkMagic PI installation, these values can be kept as the default.

Proceed to the next step where you can define where MarkMagic PI will search for license files...

```
=====
Choose License Location
-----

Please choose a location for where to check License on startup.

This sets the environment variable: 'MM_LIC_DIR'

MM_LIC_DIR (Default: /usr/local/share/MarkMagicPI10/licenses): _
```

The path you choose here will set the Linux 'MM_LIC_DIR' environment variable. MarkMagic PI has a feature where upon server startup, it can automatically detect and load license files provided to you by CYBRA. This is the path where MarkMagic PI will search for the license files. Though this location can be customized, it is recommended to keep the default path “../licenses” within the previously defined 'MM_H2_DIR' path.

Click next and you will be asked if you wish to install the bundled fonts. This is very import if you plan to use MarkMagic PI to create PDF output. It is recommended to leave this option set to true.

```
=====
Install Bundled Fonts
-----

Please choose whether to install fonts included with installer.

->1- true
   2- false

ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT::
```

Proceed to the next step and choose where program shortcuts will be placed...

```
=====
Choose Link Location
-----

Where would you like to create links?

->1- Default: /root
   2- In your home folder
   3- Choose another location...

   4- Don't create links

ENTER THE NUMBER OF AN OPTION ABOVE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
:
```

After making a decision, Press ENTER and you will be brought to the installation overview...

```
=====
Pre-Installation Summary - Linux
-----

Please Review the Following Before Continuing:

Product Name:
  MarkMagic PI 10.0

Install Folder:
  /usr/local/bin/CYBRA Corporation

Link Folder:
  DO NOT INSTALL

Java Path:
  /usr/local/bin/CYBRA Corporation/MarkMagic PI 10.0/jre

H2 Database Location:
  /usr/local/share/MarkMagicPI10

MMPI HTTPS:

HTTPS Key File:

MMPI Port:
  8080

H2 Database Port:
  9092

License Location:
  /usr/local/share/MarkMagicPI10/licenses

Install Bundled Fonts:
  true

Disk Space Information (for Installation Target):
  Required:      390,689,105 Bytes
  Available: 22,698,430,464 Bytes

PRESS <ENTER> TO CONTINUE: _
```

Press Enter to install MarkMagic PI 10.0!

```
=====
Installing...
-----

[=====|=====|=====|=====]
[-----|-----|-----|-----]

=====
Installation Complete
-----

Congratulations. MarkMagic PI 10.0 has been successfully installed to:

    /usr/local/bin/CYBRA Corporation

PRESS <ENTER> TO EXIT THE INSTALLER: _
```

MarkMagic PI is now installed! Press Enter to exit the installer. You can move to the next section of the install guide where we will discuss starting, connecting to, and managing the MarkMagic PI server.

MMPI Linux “Silent” Install:

For system integrators that require instant deployment of an MMPI installation, there is one final option for installing MMPI called the silent method. This installation procedure requires no user input and can be customized for your environment using a special properties file. Please contact CYBRA Support help@cybra.com for more information about this installation method.

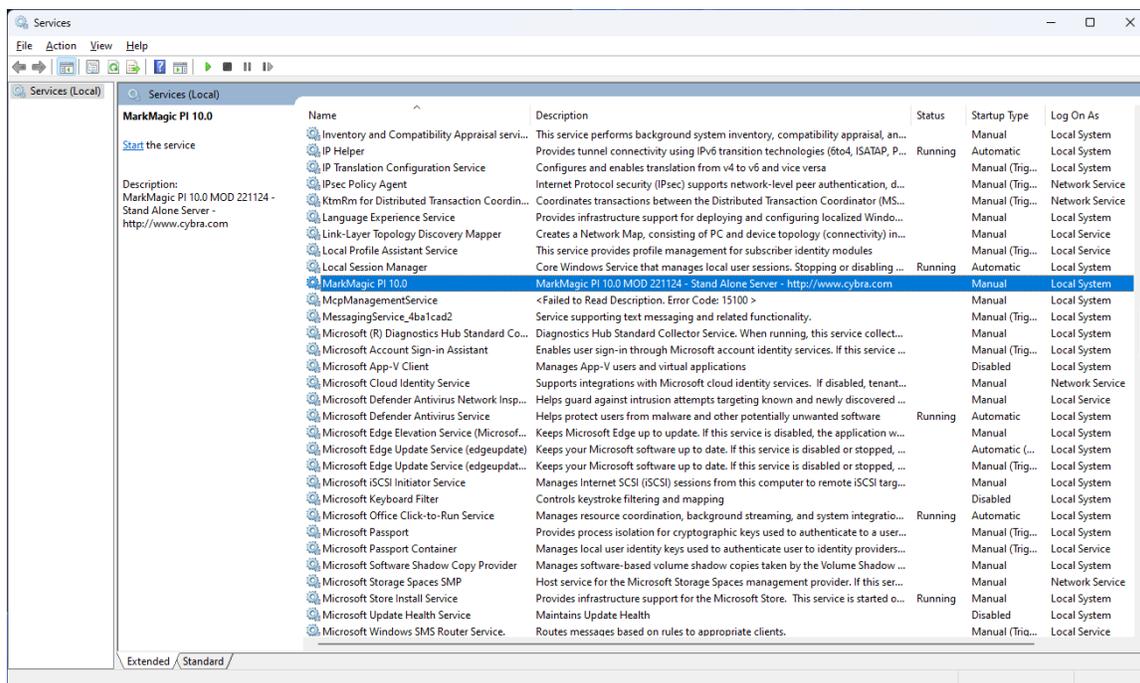
C. Starting and Stopping the MarkMagic PI Service

MarkMagic PI runs as its own service rather than requiring the use of a separate installation of Apache Tomcat. You can start and stop MarkMagic PI like you would any other service that might be installed on your PC or server. The methods for doing so are different depending on the OS you installed MarkMagic PI on. This section of the guide will describe how to start and stop the MMPI service in Windows and Linux.

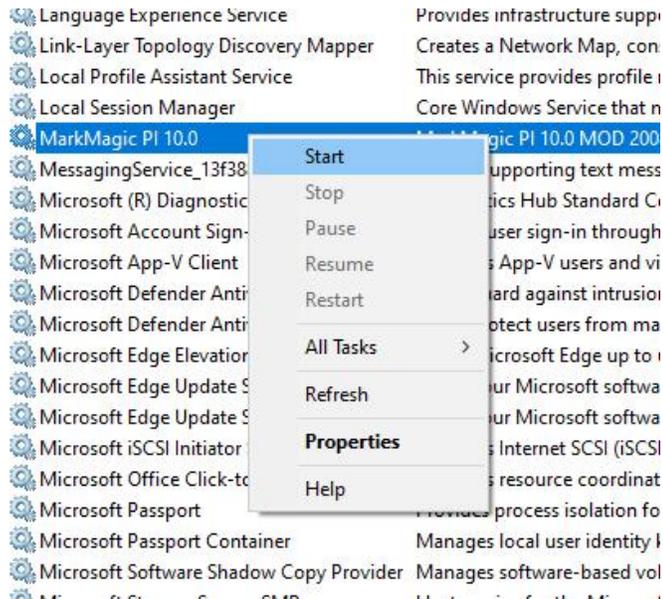
Starting and Stopping the MarkMagic PI Service in Microsoft Windows

Open the Windows Services GUI by searching for 'services' in the start menu search bar or by going to Start >> Run >> **services.msc**

Find MarkMagic PI 10.0 in the list.



Right click MarkMagic PI 10.0 and choose ‘Start’:



You should see the service listed as “Running”:

Link-Layer Topology Discovery Mapper	Creates a Network Map, consisting of PC and device topology (connectivity) ...	Manual
Local Profile Assistant Service	This service provides profile management for subscriber identity modules	Manual (Trigger Start)
Local Session Manager	Core Windows Service that manages local user sessions. Stopping or disablin...	Running Automatic
MarkMagic PI 10.0	MarkMagic PI 10.0 MOD 200831 - Stand Alone Server - http://www.cybra.com	Running Manual
MessagingService_13f38832	Service supporting text messaging and related functionality.	Manual (Trigger Start)
Microsoft (R) Diagnostics Hub Standard ...	Diagnostics Hub Standard Collector Service. When running, this service colle...	Manual
Microsoft Account Sign-in Assistant	Enables user sign-in through Microsoft account identity services. If this servic...	Running Manual (Trigger Start)
Microsoft App-V Client	Manages App-V users and virtual applications	Disabled
Microsoft Defender Antivirus Network In...	Helps guard against intrusion attempts targeting known and newly discovere...	Manual

The MarkMagic PI server is now active! We will discuss connecting to and applying a license to your new MarkMagic PI installation later in this guide.

To stop the MarkMagic PI server, simply follow the same steps used for starting the server, except choose ‘Stop’ on the right click menu.

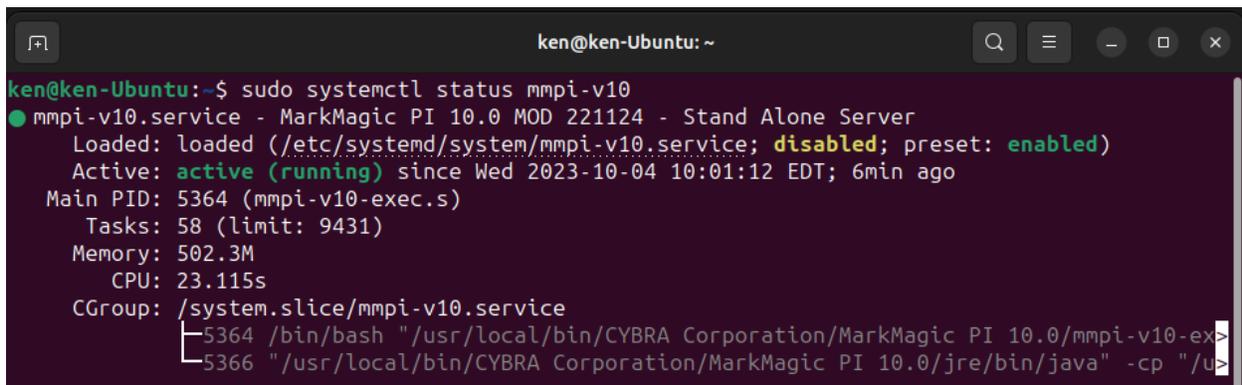
Starting and Stopping the MarkMagic PI Service in Linux

MarkMagic PI utilizes the Linux SystemD service manager. Start the MMPI service by issuing this command:

```
sudo systemctl start mmpi-v10
```

To check the status of the MMPI service, run the command:

```
sudo systemctl status mmpi-v10
```

A terminal window screenshot showing the command 'sudo systemctl status mmpi-v10' and its output. The output indicates the service is active and running. The terminal text is as follows:

```
ken@ken-Ubuntu:~$ sudo systemctl status mmpi-v10
● mmpi-v10.service - MarkMagic PI 10.0 MOD 221124 - Stand Alone Server
   Loaded: loaded (/etc/systemd/system/mmpi-v10.service; disabled; preset: enabled)
   Active: active (running) since Wed 2023-10-04 10:01:12 EDT; 6min ago
     Main PID: 5364 (mmpi-v10-exec.s)
        Tasks: 58 (limit: 9431)
       Memory: 502.3M
          CPU: 23.115s
   CGroup: /system.slice/mmpi-v10.service
           └─5364 /bin/bash "/usr/local/bin/CYBRA Corporation/MarkMagic PI 10.0/mmpi-v10-ex>
             └─5366 "/usr/local/bin/CYBRA Corporation/MarkMagic PI 10.0/jre/bin/java" -cp "/u>
```

The service should show as **active (running)**. Various other stats will also be visible such as service uptime, memory usage, etc.

The MarkMagic PI server is now active! We will discuss connecting to and applying a license to your new MarkMagic PI installation later in this guide.

To stop the MarkMagic PI service, run the command:

```
sudo systemctl stop mmpi-v10
```

D. Connect to the MMPI Web App

Once the MarkMagic PI service is started, you are ready to connect to MMPI with a web browser.

Enter the following URL in the address bar:

<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 server 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



Sign On

Enter your MarkMagic user ID and password

User Id

Password

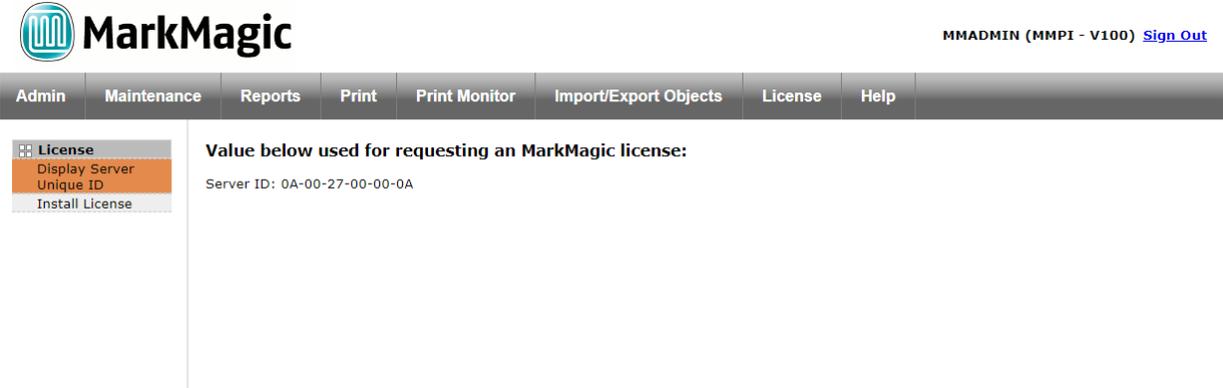
Proceed to Section E for applying your MMPI license and Section F for installing JMagic.

E. Applying the License

If this is new install or you upgraded to a new version of MarkMagic PI (Example 9.5 -> 10.0), 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.

To obtain a license from CYBRA, you will need to provide your MAC address for the system that the MarkMagic PI server is installed on. The license will be emailed to you in the form of a *.lic file. In the MMPI Web Application, navigate to 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.



Click on the **Install License** button. This is where you can apply your new license. Click the “Browse” button, select the file that was given to you by CYBRA and then click “Submit”. Once the license is submitted and accepted, you will see all of the license specific details populated on the page. It will list the license type, and expiration dates, and any addon options you may also be licensed for.

- License**
- Display Server
- Unique ID
- Install License**

License Management for MarkMagic

Install License

Reload licenses from the MarkMagic License Directory

License Details

A Temporary License is currently being applied...

System ID: 0A-00-27-00-00-0A
Issued To: OU=CYBRA

Your license is now installed and you are ready to use MarkMagic PI 10.0!

F. JMagic 10.0 Installation

You can load JMagic 10 on *any* PC running a modern version of Microsoft Windows OS.

Minimum Hardware Requirements:

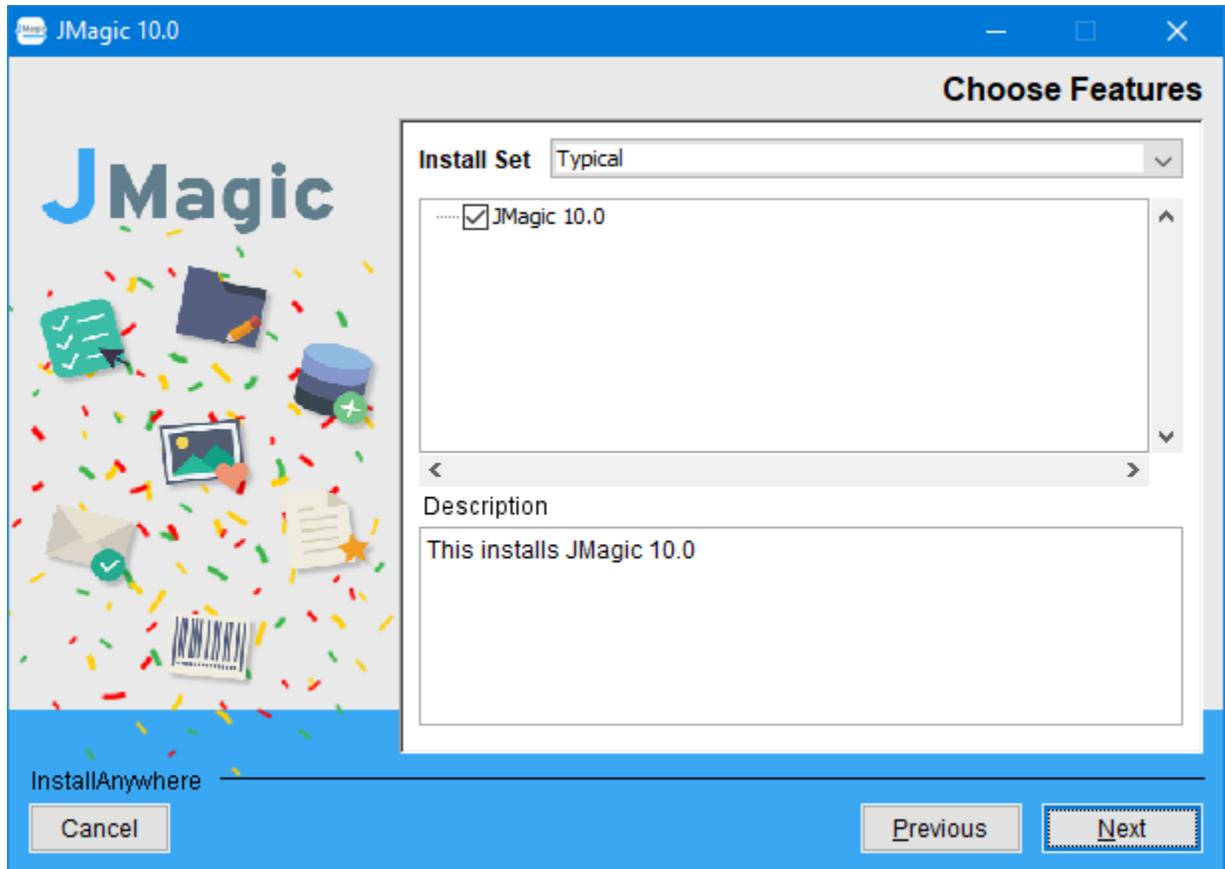
Processor	1.5 GHz Intel Pentium IV, or higher
Display	SVGA, 1152x864 (recommended minimum resolution)
Memory requirements	512MB RAM
Disk space requirements	150 MB for JMagic 70 MB for Java Virtual Machine

Note: To use JMagic 10.0, MarkMagic PI version 10.0 must be active.

Download the JMagic10 install zip file from CYBRA's website and extract the enclosed file to a temporary subdirectory.

Double click the JMagic10Setup.exe file within to launch the JMagic InstallShield Wizard and follow the prompts.

JMagic Installation



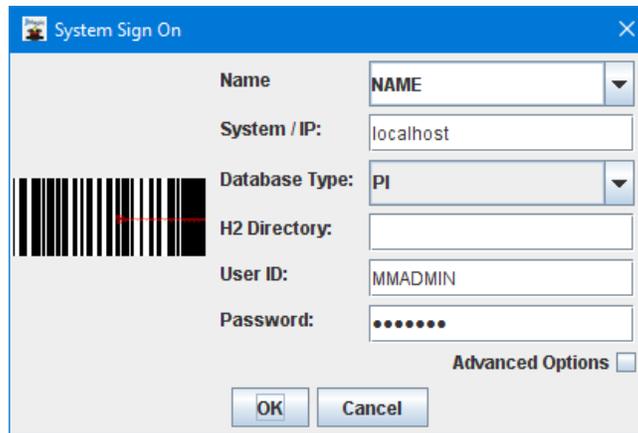
The wizard will prompt you to select an existing subdirectory, or create a default product destination subdirectory, for example: "X":\Program Files\CYBRA Corporation\JMagic 10.0. (Where "X" is your drive letter) as well as the Follow the steps to complete the installation.

Default Install Log Location: "X":\CYBRA Corporation\JMagic 10.0\Uninstall_JMagic 10.0\Logs

Navigate to the Start menu Programs folder, then CYBRA Corporation, and then click on the icon "JMagic 10.0" to start JMagic. Sign on to the MMPI System (localhost or MMPI server IP address) to initiate communications with MarkMagic 10.0.

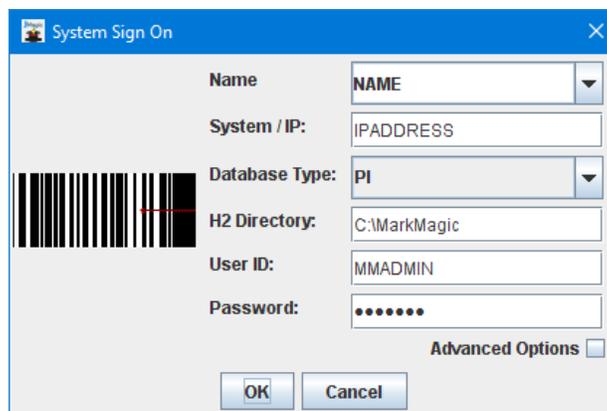
Starting JMagic

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/IP:” parameter at logon. You can also provide a custom name for your connection so that you can quickly recall the connection settings the next time you start JMagic.



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.

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 of the server where MMPI is installed as well as the path to the H2 database on that server.



Click OK to sign on to JMagic 10.0 and connect to the MMPI server.

MarkMagic Support :
914-963-6600 Option 4
• Fax: 716-712-0666 •
help@CYBRA.com



We identify with success.