



## Welcome to Kmax

Kmax is a cross-platform, Java-based application that will run on Windows, Linux, or Mac OS X. This distribution of Kmax replaces all previous releases except for Kmax on Mac OS X platforms running the PPC processor. There is no upgrade for PPC-based computers. This release has been tested on the Windows 7, Mac OS X 10.6, and Fedora 13, 64-bit platforms.

## Installing Kmax

To insure that a computer can run Kmax properly, it should have an appropriate version of the OS and of the Java JDK installed (see the table below). Other combinations of OS-version and JDK-version may also work. Install OS and Java upgrades according to the instructions provided by the vendor.

OS	OS-Version	JDK-Version
Mac O S X	1.6.4 or greater	1.6 or greater
Linux	Fedora 13 or greater	1.6 or greater
Windows	7 or greater	1.6 or greater

### Java JDK required

The full Java Development Kit (JDK) is required not just the Java Runtime Environment (JRE). The JDK is required to insure that Kmax can find and execute the Java compiler 'javac'. Install the Java JDK on Windows and Linux platforms according to the instructions provided by the Java JDK provider. Some versions of Mac OS X are shipped with the Java JDK already installed.

### Check for java and javac

You also need to insure that both java and javac are in the execution path so that both the OS and the Kmax application can find them. To check that Java is properly installed, open a terminal window (or command line tool) and at the user prompt type:

```
$: java -version
```

The system should respond with something similar to:

```
java version "1.6.0_20"  
Java(TM) SE Runtime Environment (build 1.6.0_20-b02-279-10M3065)  
Java HotSpot(TM) 64-Bit Server VM (build 16.3-b01-279, mixed mode)
```

To insure that javac is installed and that it is in the execution path from the command line type:

```
$: javac -version
```

The system should respond with the version information:

```
javac 1.6.0_20
```

If either of these tests fail, the PATH variable must be modified to include the path to the java and javac executables.

### **Java3D is required for some Kmax features**

If you want use Kmax to view 2D histograms as 3D surfaces you must install the Java3D package on your computer and insure that it is installed in the proper directory so that Kmax can locate the Javd3D classes. After you install Kmax, you can determine whether Java3D is properly installed by selecting the "About Kmax..." item from the Kmax "Help" menu. Select the "System Info" tab on the "About Kmax" dialog and scroll down to the "Java3D Properties:" section. If the Java3d "Vendor" and "Version" information is displayed, then Java3D is properly installed.

### **Install and run Kmax**

Download the latest version of Kmax from the Sparrow website ([www.sparrowcorp.com](http://www.sparrowcorp.com)). The Kmax distribution downloads as a zip archive. Unzip the Kmax\_Stuff folder and place it in any convenient location. If you are installing a new version over an older copy of Kmax, be careful not to overwrite files in the Kmax Folder that were added or edited since the last installation.

On Mac OS X double-click the Kmax.app icon to start Kmax. On Linux, you can double-click Kmax\_Linux.sh, or run Kmax from the command line. On Windows, you can double-click the Kmax\_Win.lnk or run Kmax from the command line. (Linux and Windows users may need to edit the Kmax\_Linux.sh or Kmax\_Win.lnk files to insure that the paths to the java executables are correct for their platforms.)

If Kmax fails to start, the most frequent problems are that Java JDK is not properly installed or the path variables are incorrect. If Kmax starts but cannot compile toolsheets, either the JDK is not properly installed, or javac is not in the execution path. Make sure that the PATH variable includes the directory path to javac.

If Kmax fails to start or if your toolsheet fails to compile, check to see that you have appropriate file permissions to access and execute java and javac.

To run Kmax from the command line, cd into the Kmax\_Stuff directory (e.g. cd ~/Kmax\_Stuff) and execute the command:

```
$: java -jar Kmax.jar
```

On Windows, you can also try:

```
$: javaw -jar Kmax.jar
```

### **The Kmax password dialog**

The first time that Kmax executes in a user account, the “About Kmax” dialog box is displayed with the “License” tab selected. Read the license agreement. If you do not accept the license agreement, cancel the dialog and remove the Kmax software from your system. If you accept the license agreement, you may click “OK” to run Kmax in demonstration mode. If you have purchased a license or have requested an evaluation license for Kmax, click the “Privileges” tab and note the Machine ID. You will need the Machine ID to request a password from Sparrow. You may also select the “System Info” tab and copy the entire contents of that window and send it to Sparrow. This information includes the machine ID and can be used to identify the details of your installation should you require technical support from Sparrow in the future. Send the Machine ID or the “System Info” to [support@sparrowcorp.com](mailto:support@sparrowcorp.com) and request a password. Enter this password in the “Privileges” tab of the “About Kmax” dialog and click OK to enable your Kmax license. If you are installing a Kmax upgrade with the same major version and already have a valid license on your computer, you will not need to request another password since the license will still be valid. If you are moving the Kmax application to another computer or to another user account, you will need to run Kmax for the first time, record your new machine ID, and request a new password from SPARROW as described above.

### **Other required drivers and libraries**

The Kmax distribution package includes natively-compiled code modules that Kmax uses to connect computer interfaces to external devices. This native code is platform specific and often depends on libraries or device drivers provided by the manufacturer of the external device. The availability of these modules depends on the quality of support available from the manufacturer of the device, and thus not all devices are supported on all platforms. Please contact the device manufacturer or Sparrow Corporation ([support@sparrowcorp.com](mailto:support@sparrowcorp.com)) to determine if your specific device is supported.

If you have a SCSI device that you plan to use with Kmax on a Windows-based computer, you will need to use an Adaptec compatible SCSI interface host adapter and install the ASPI drivers from Adaptec. To download and install the ASPI drivers for Adaptec cards, go to "<http://www.adaptec.com/>" and follow the links to download the ASPI drivers for your platform. Make sure that you read the installation instructions. If your board is not from Adaptec, check with the vendor regarding ASPI support.

If you plan to use a USB device, the Kmax driver may require the libusb 1.0 library. Download and install the latest version available for your operating system.

## **Kmax Documentation**

The Kmax reference manual is provided as a set of HTML files and may be read using any web browser. The manual can be accessed from the Kmax Help menu. Keep the Kmax Manual folder in the same folder as the Kmax application and bookmark the Kmax.html home page in your browser for easy access. While the manual will be a valuable reference, the best way to learn how to design and build toolsheets is to explore the toolsheet examples provided with the Kmax distribution.

## **Important Compatibility Information**

Kmax toolsheets containing Picture widgets which were last saved in Java JRE versions prior to (approx.) 1.6.0\_26 will not open properly when Kmax is running in JRE versions 1.6.0\_26 and above. As of Kmax version 9.3, the Kmax toolsheet format has been changed to accommodate this change. Only the picture widget format has changed, so toolsheets that do not contain picture widgets are fully

backward/forward compatible.

In order to use these earlier toolsheets with Kmax 9.3 and above or in JRE version 1.6.0\_20 and above, you must first open the toolsheet in an earlier JRE version with Kmax version 9.2.3 (or below) and clear all picture widget images. Save the toolsheet without the image. The toolsheet can now be opened with Kmax version 9.3 and above in JRE 1.6.0\_20 and above. The images may now be imported back into the pictures widgets and the toolsheet saved.