macoslib Overview

macoslib is a collection of objects and functions filling the gap between Xojo and OS X.

The Purpose of macoslib

Xojo is mainly focused on being cross-platform, i.e. you can use the same code and generate an application for OS X, Windows or Linux. This is a very good idea but it also means that some features available on only one OS may be dismissed because they have no equivalent on the other OSes.

Whenever you want to use some "advanced" features of an OS, you need to use direct system calls through the *declare* statement. The problem is that not everyone has the skill to do that and that is where **macoslib** intervenes, at least for OS X. If you want your application to use the full power of OS X features then **macoslib** can be helpful.

macoslib defines a lot of Carbon and Cocoa objects. Each object has methods and properties which will be directly sent to the system, so you are no longer limited by Xojo. Not only some Xojo classes are extended, but you can also use some classes/controls which are not implemented at all in Xojo.
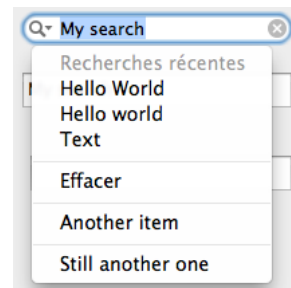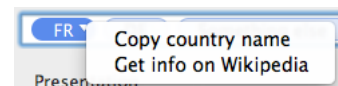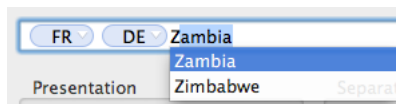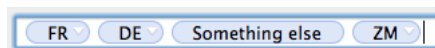
Basic Controls

Search Field
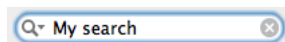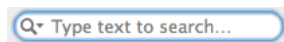
The famous Search Field, with its prompt, the cross icon to delete the text typed and the fully customizable menu.

Recent searches can be easily included and there are automatically saved in the preferences file.

There is also a Search Field class for toolbars.

### Token Field

You have been using the Token Field for ages in *Mail.app* without knowing its name. Each value corresponds to a object but it is displayed as an abbreviation. When typing, an autocompletion menu is displayed (middle image). Also, each object can have its own menu (right image).

Objects can be rearranged by drag&drop, they natively support copying, pasting, deleting and undo.

Date Picker

04/09/2013 20:30:20
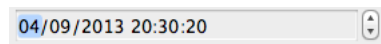
The Date Picker allows you to set a Date and/or a Time very simply and the way OS X does.
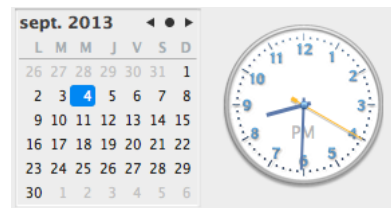
Accessing System Icons

With a single line of code, you can access any system picture. It can be a Finder icon (folder, application...) or icons to be used inside buttons. As an example, the following buttons were created on-the-fly from system icons.

But you also can use those system icons in your Toolbar:
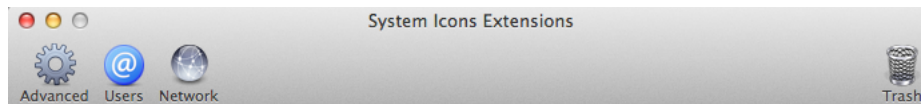
Managing Cameras and Scanners

Do you want to transfer photos from/to your camera/iPhone/iPad ? Or do you want to control your scanner (including multifunction printers) to preview and scan a document ? This is pretty easy with **macoslib**. You will get the standard display as in any Apple application (e.g. Preview), including the list of usable hardware locally and/or on the network. As a bonus, the interface is automatically localized per user's choice. See *ImageKit* and *ImageCaptureKit* in **macoslib**.

Two different presentations of the available local/networked hardware:
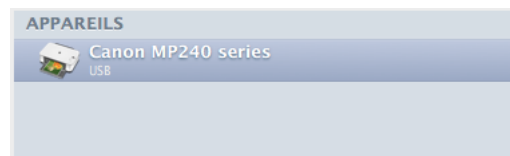
What You can't See

Many classes and controls provide invisible features (but the best is always behind the scene !).

Bonjour

If you are a Mac user, you must know Bonjour, a cross-platform technology to detect all the services available on the local network. For example, many printers implement it so they are automatically detected and configured by your Macintosh.

With **macoslib**, it becomes easy to detect any printer or service over the network, but also to advertise your own service.

System Notifications

You may be interested in being informed whenever a system-wide event occurs like a new disk being mounted or ejected, the user having changed the Finder labels, an application being launched or terminated and so on. **macoslib** can do that for you.

Filesystem Events

Each time a file or folder is created/modified/deleted, a new entry is created in the FSEvent (aka *FileSystem Event*) database. It allows you to know what is happening or what happened since the last time your application quit.

Speech

Speech synthesizing was quite limited before Lion but now, it is multilingual and supports high-quality voices. **macoslib** offers a fine-grained control over the voices, volume, rate and all the events associated with speech synthesis.