

macoslib Overview

macoslib is a collection of objects and functions filling the gap between Xojo and OS X. This document describes **only some** of the improvements macoslib brings to your apps.

The Purpose of macoslib

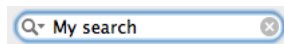
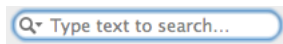
Xojo is mainly focused on being cross-platform, i.e. you can use the same code and generate an application for OS X, Windows or Linux. This is a very good idea but it also means that some features available on only one OS may be dismissed because they have no equivalent on the other OSes.

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.

Controls and Windows

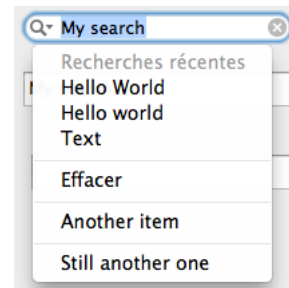
Search Field



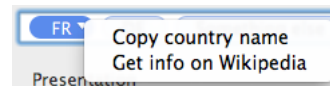
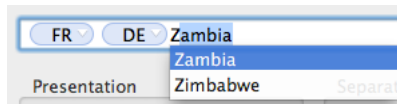
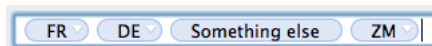
The famous Search Field, with its prompt, the cross icon to delete the text typed and the fully customizable menu.

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

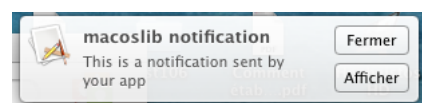


You have been using the Token Field for ages in *Mail.app* without knowing its name. Each value corresponds to a object but it is displayed as an abbreviation. When typing, an autocomplete menu is displayed (middle image). Also, each object can have its own menu (right image).

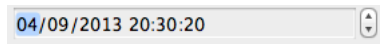
Objects can be rearranged by drag&drop and they natively support copying, pasting, deleting and undo.

User Notifications

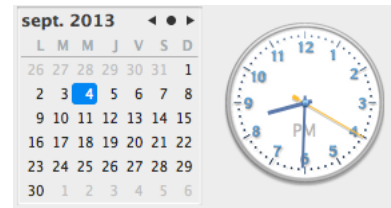
Since OS X 10.8, applications can display user notifications as Growl used to. Such notifications appear in the Notification Center but they can also be postponed, repeated...



Date Picker



The Date Picker allows you to set a Date and/or a Time very simply and the way OS X does.

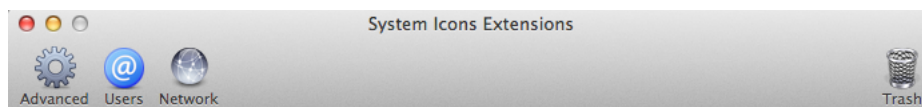


Accessing System Icons

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.

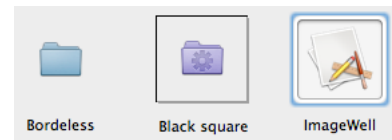


But you also can use those system icons in your Toolbar:



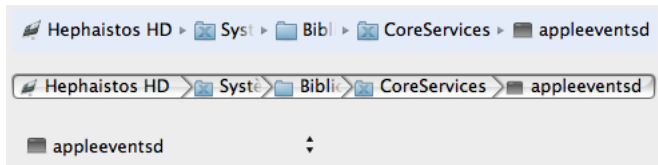
... and using the Image View control to display them

With the Image View control, you get rid off the hassle of painting, scaling or aligning the displayed picture. It has much more fine grained options than Xojo. Also, it can handle automatically the copy/paste/cut commands and the drag&drop operations.



Path Control

When working with the disk hierarchy, it may be a nice user experience to display an interactive path of a FolderItem. Your app is notified when the end-user clicks on one component of the path so you can update the content of your window.



The three different styles:

- Standard
- NavigationBar
- PopUp

For folders whose name has been truncated, they automatically expand when the mouse passes over them.

DockTile Badge

Ever wanted to add a badge to your application icon in the Dock like Mail, App Store and many others ? **macoslib** provides such feature and it just takes 2 lines of code.



Windows Extensions

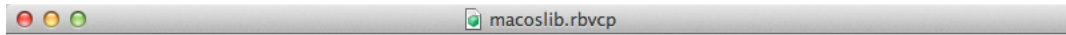
For most apps, windows are the heart of the interaction with the end-user.

The famous HUD (*Heads-Up Display*) is this floating dark gray translucent window everybody wants but it is not available even in the latest Xojo release (2013r2 at the time of writing). **macoslib** lets you create one very easily and it works exactly as any floating window.



Proxy Icon and Menu

The absolute must-have for any document-based window is the so-called proxy icon, i.e. the document icon preceding the title. Not only does it enable the proxy menu to access the folder hierarchy to which the file belongs, but also it allows to drag&drop the file itself either to move/copy it or to create an alias to it. With **macoslib**, you can have all that with a single line of code !



Full Screen Applications

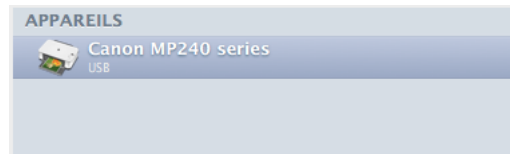
OS X Lion introduced the concept of full-screen applications which are best used with several workspaces. Clicking on the icon on the right of the title bar brings you to that mode.



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.