LangBox International

XLANGBOX™ For Arabic

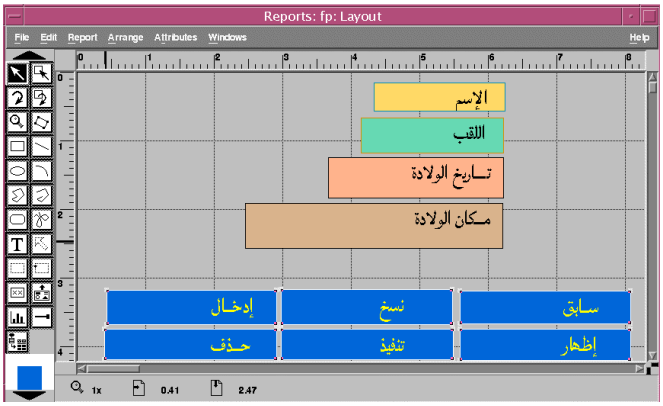
THE PRODUCT

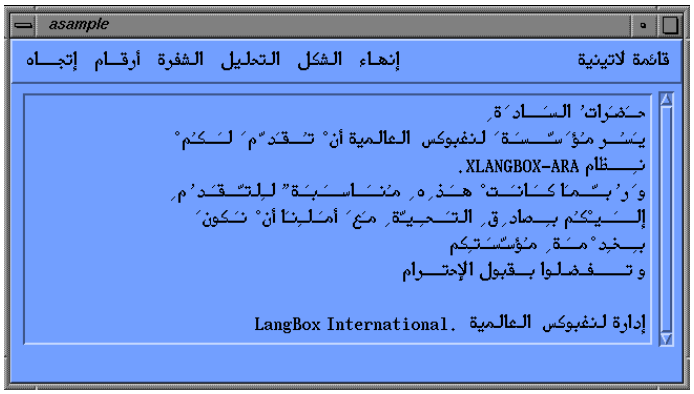
XLANGBOX-ARA package allows arabization of GUI X Window interface based applications, running under Unix workstations.

When **XLANGBOX-ARA** is installed on your system, Arabic display is supported (in addition to English), with keyboard mapping, font and display management, mouse text selection, cut and paste drag and drop, as well as text printing.

TRANSPARENCY

XLANGBOX-ARA will permit staff in your office to share and use existing UNIX X applications in Arabic with little or no adjustment.
With LangBox International's load and go transparency, a user can obtain an English word processor, Web Browser, Data base management front-end, GIS or any 8-bit clean X Window and/or OSF Motif based application and use it immediately, without any modification of the application, in Arabic. He/She can even mix Arabic and English characters and text within the same widget, with a simple keystroke.
No need to develop or adapt the core software to the Arabic specificities. Software Localization for Arabic





BENEFITS

For the User

- Use the best existing "English-only" applications in Arabic with no modification for Text editing, Web browsing, Database management....
- Dynamically switch between Arabic and English.
- Same concept of Arabic support for applications.

For the Developer

- Develop Arabic products and bilingual applications without bilingual programmers.
- Move existing "English-only" applications into the Arabic world.
- Develop applications that meet the highest Arabic standards, on cross UNIX platforms.
- Localization for Arabic become just a translation job, as Spanish, French or German languages.

For the Distributors and VARs

- Open new markets with new products/systems that meet local requirements.
- Expand your customer base with bilingual product offerings.

For the Manufacturers

- Enhance your total offering to the Arabic markets.
- Address international opportunities through our special LangBox International cooperation program.

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XLANGBOX-ARA IMPLEMENTATION

The arabization support is included in different library levels, depending on the application use itself.

The X Window library (Xlib or X11)

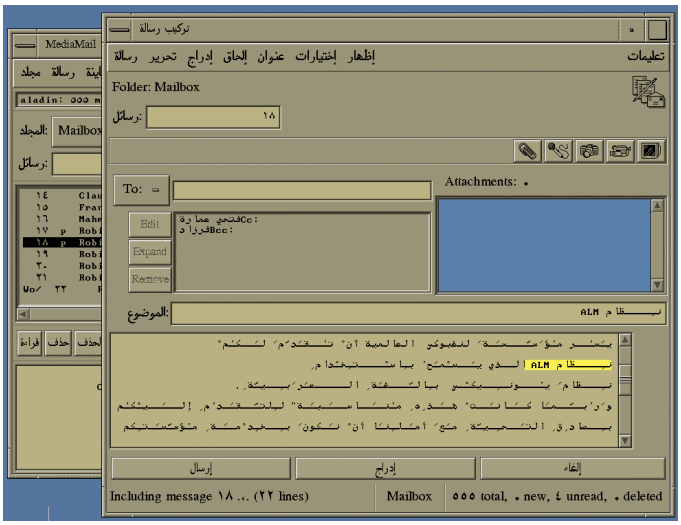
The X-lib system consists of a low-level C language interface to the graphic X Window system protocol. A subset of these functions is capable of inputting and displaying text through the X-Server.
An XLANGBOX-ARA library of also C-callable functions has been developed to support these Xlib functions. It allows the programmer to obtain a bilingual English-Arabic data entry and display capability with the same effect as the original functions.

The OSF/Motif library (Xm)

The Motif widget system is layered on the top of the X toolkit, which in turn is layered on the top of the X Window X-lib system. This Motif library consists of a number of different widgets helping in the creation of complex applications. Some of these widgets allow input and/or output of character strings. Creation and manipulation of these objects are accessible through adequate calls from a C or C++ program. The text and string objects in this package have been enhanced with XLANGBOX-ARA objects and functions providing the developer with full bilingual English/Arabic rendering widgets.

STANDARDS

XLANGBOX-ARA supports ISO 8859-6, ASMO 449+, and ASMO 708. Codeset conversion available for MS CP1256.



OPERATING SYSTEM CONSIDERATIONS

Under Unix, applications can run under two modes: one with the capability of dynamic linking, and another with fixed size linking.
Dynamic Linkers (rld) load functions on as needed basis. When an application is spawned, the system dynamically checks and loads the required system libraries. Libraries already loaded in memory by another application will be shared instead of duplicate its instance in memory. In this configuration, the XLANGBOX functions will intercept the library functions (of Xlib, Xt or Xm) and provide exception processing to the functions processing text. With dynamic linking an application is likely to work as is without entering modifications to the program.

If however, the system does not support dynamic linking, the XLANGBOX functions have to be embedded in the code (or in the source) of the application, which must be relinked with the XLANGBOX-ARA static libraries.
The XLANGBOX-ARA is always provided as independent archive libraries in static and in shared format, with a large set of X Window Arabic fonts, printing support and samples demo programs.

OPERATING SYSTEMS SUPPORTED

XLANGBOX-ARA X11 only support

Ported to SCO UNIX System V 3.2v4, IBM AIX on RISC System/6000 3.1 and 3.2, SUN OS 4.1.x, DEC VAX VMS 5.5 and 6.2, DEC Alpha OpenVMS 6.5

XLANGBOX-ARA X11 and OSF/Motif support

Ported to Sun Solaris 2.3 to 2.6 on Sparc, Sun Solaris X86 2.6, Silicon Graphics Irix 5.3 and 6.2, CDC EP/IX 2.1.1 and DEC Unix (OSF/1) 3.2

HARDWARE SUPPORTED

All equipment running any above-mentioned version of UNIX.
For printers, support is available for IBM proprinter II and III, EPSON LQ, FUJITSU DL, Genicom 1040 and 4440, DEC LA75+, HP Deskjet plus, HP laserjet plus, and Postscript.

PACKAGING

XLANGBOX-ARA consists of a core system supplied in binary machine-readable format on floppies, QIC tapes, CDROM or Web downloadable compressed file, together with documentation, and local keyboard stickers.

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