

# MOBILELABS

Language Solutions for Mobile Devices

Mobile Labs Sweden AB provides language- and text-related software products for embedded use in mobile devices. Our v-rocs product suite offers a complete solution for advanced text output of complex (and other) scripts.

The v-rocs product suite consists of v-rocs Core (the core component for handling language logic, bitmap fonts etc), v-rocs Outline (a very efficient renderer of TrueType/OpenType outline fonts), v-rocs Bi-di (supporting Urdu, Arabic etc), v-rocs Layout (providing text and object layout), language modules and fonts.

Mobile Labs provides its products in bundles, e.g. optimized for Entry level and Feature level mobile phones. Bundles are compiled based on customer requirements.

बाघ जंगल में रहने वाला मांसाहारी  
पाघ એ બિલાડી વંશનું સૌથી મોટું પ્રાણી  
شیر ملی کی نسل سے تعلق رکھتے ہیں۔

## Products



### v-rocs Core - Visual Rendering of Complex Scripts

The ideal rendering solution for complex scripts in mobile devices, providing a common language core that is integrated with the system platform. It takes Unicode (UCS-2) as input and acts switchboard for the different language modules.



### v-rocs Outline - Outline Font Engine

Provides efficient and high quality rendering of TrueType and OpenType outline fonts and is optimized for small CPU and memory requirements as found in mobile devices. It supports features like run-length and bitmap caching, scaling, bold, italic, shadow, outline, colors, sub-pixel rendering, gamma adjustment, etc.



### v-rocs Bi-di - Bi-directional Rendering

Bi-directional support for Urdu, Arabic etc, fully compliant with Unicode 5.1. Plug-and-Play compatible with v-rocs Core's API and with a minimal performance impact.



### v-rocs Layout - Layout of Text and Objects

Layout engine for text and object layout, handling text and object layout with editing features like insert, delete, wrapping etc. It can be used as the backend to an interactive editor.

## Languages and Fonts

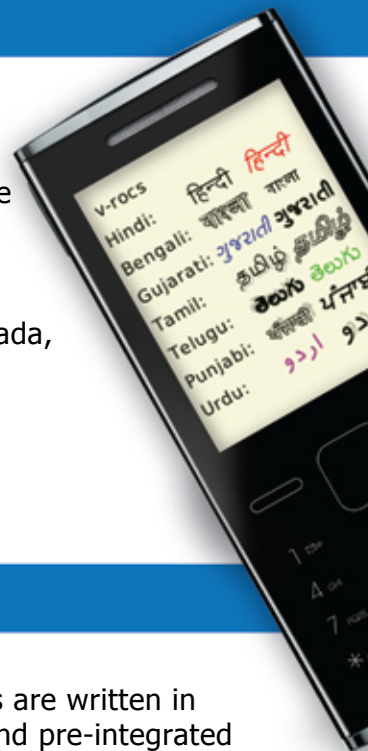
Mobile Labs provides language modules and fonts for use with the v-rocs product suite. New language modules and fonts are developed on a regular basis and partly based on customer demand. For the latest information, please refer to Mobile Labs' Web site (see Contact Information below).

### Available:

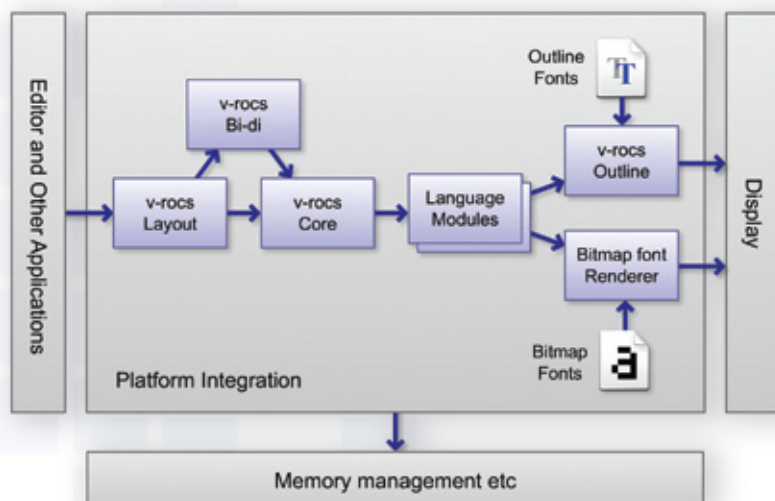
Latin, Hindi, Marathi, Bengali, Tamil, Telugu, Gujarati, Assamese, Kannada, Malayalam, Punjabi, Urdu, Arabic

### During Q2:

Hebrew, Thai, Chinese, Korean, Japanese, etc



## Architecture



All v-rocs products are written in portable ANSI C and pre-integrated with each other. v-rocs has small memory, CPU performance and system functionality requirements.

v-rocs is very easy to integrate into mobile platforms. Reference integrations exist for Windows .NET, Symbian (Series 60), Linux (OpenMoko) and TAT Cascades, and commercial integrations have been made on ARM-based proprietary platforms.

## About Mobile Labs Sweden AB

Mobile Labs Sweden AB is based in Lund Sweden, a telecom center in the southern part of Sweden, where also Sony Ericsson Mobile Communications and Ericsson Mobile Platforms have their principal development labs.

Mobile Labs focuses on development of software for mobile devices and has long experience and expertise in the field of developing optimized software solutions for mobile phones, and specifically such for language solutions.

## Contact Information

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