

sevenstax MMI 2.0

Software Library For Embedded User Interfaces

The sevenstax library was designed to ease the creation of Man-Machine-Interfaces especially for devices having only a few buttons. Both alphanumerical and graphical displays are supported. The MMI is created by using pre-defined elements. These elements enable the user to integrate function calls of the embedded system directly to access variables and parameters without much effort.

The MMI is described by a XML format and translated into 'C'-Source code by a special converter delivered with the library. The sevenstax software supports the use of multiple languages.

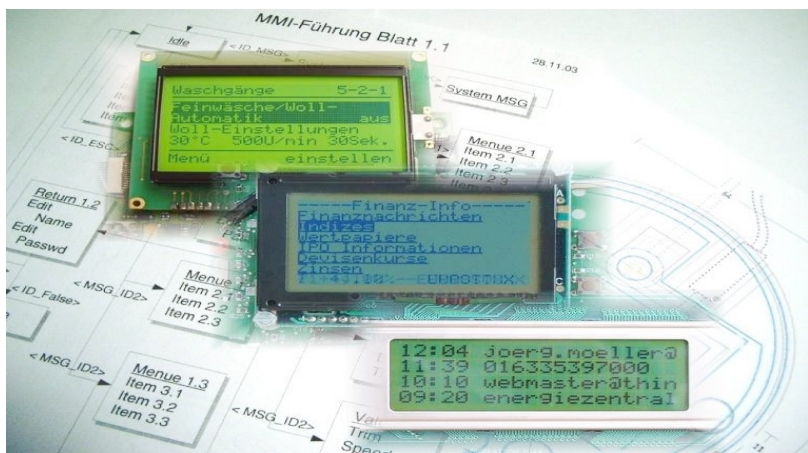
Display outputs are organized by the sevenstax MMI library as formatted pages which can contain a variable number of elements. These elements themselves, for instance text- or editor-items, carry properties like left-aligned or bold.

The pages can be linked in a flexible way. Navigation is additionally supported by a history to go back to previous pages.

The MMI can be operated with any input device for instance key pads, turning knobs or internally by system events. Text- or numerical input can be fixed by increment and/or range.

Characteristics:

- small memory footprint and resource requirements
- for micro-controllers from 8...32 bit
- no blocking states even without operating system
- easy integration into existing or new designed systems
- supports multiple languages
- integrated, extensible font
- little development effort to create the MMI by using a XML description. The MMI can be



developed and tested on PCs. Free Tools are available.

Basic Elements:

- header and footer
- menu items
- static and dynamic text
- numerical editors with different formats
- lists (for instance for weekdays)
- ticker
- container to group elements

Memory & System Requirements:

The required RAM and ROM are depending on the number and kind of elements used as well as on the

number of pages. The RAM usage is also influenced by the links between the pages. Typical values for an embedded systems are:

ROM (Lib): **33 kBytes Code**
 ROM (Pages): **800 Byte / Seite**

RAM (Lib): **400 Bytes**
 RAM (Elements) **500 Bytes**

What You Get:

- well documented Source-Code
- detailed API-Dokumentation
- Sample Code
- User Manual including porting- and configuration guidance