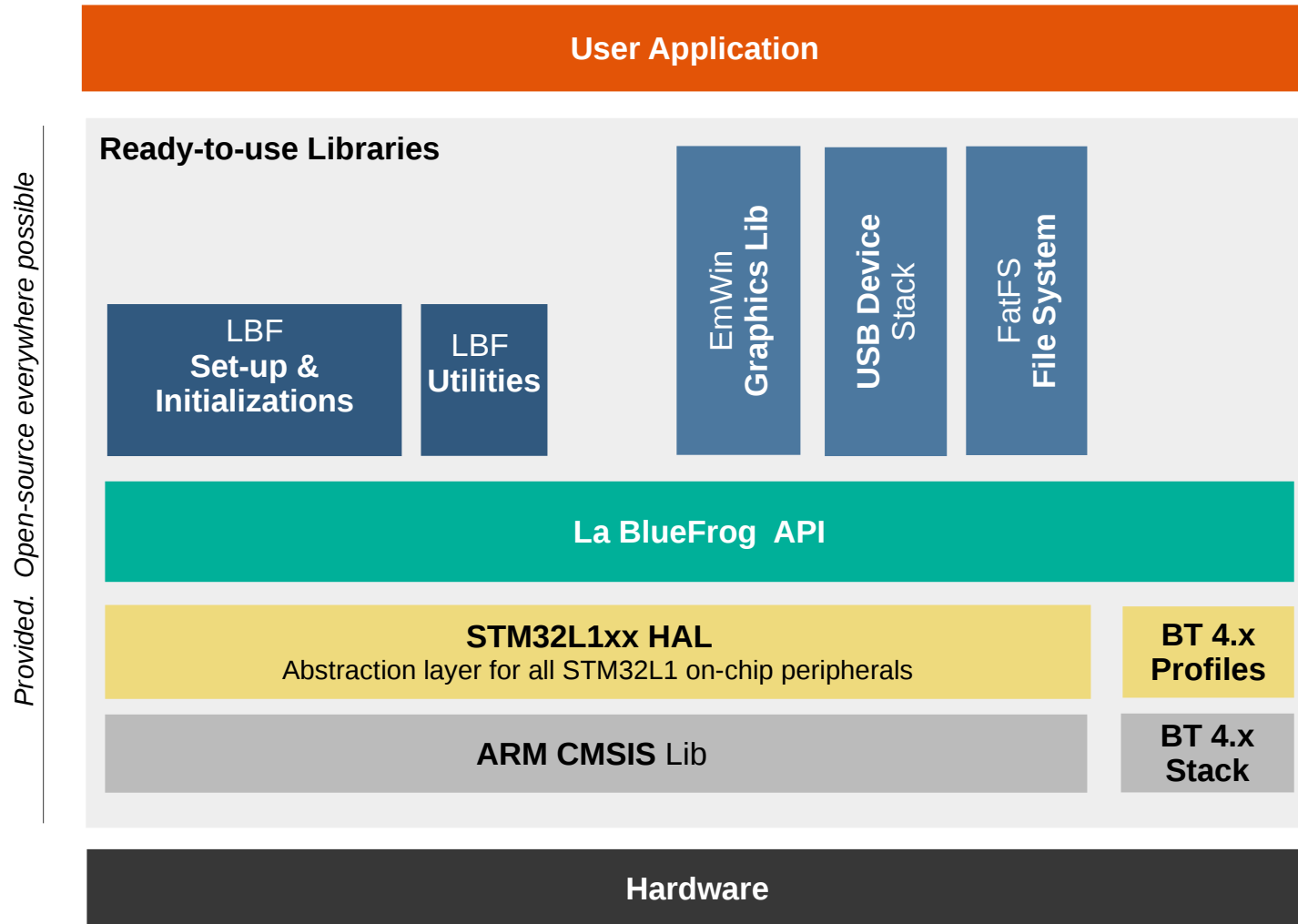


Software Libraries



Note: Various options available as real-time/embedded OS kernel if needed, although not provided as part of La BlueFrog software package at this time.

Software Structure

/<xxxx>

-- /libraries

- /BlueFrogV2-Lib
 - # Board init and controls - La BlueFrog specific
 - # Adaptation Layers for Middlewares (USBD, FatFS, emWin)
- /CMSIS
- /STM32L1xx_HAL_Driver
- /STM32_USB-Device_Library
- /FatFS_Lib
- /STemWin_Lib

La BlueFrog libraries

*ST- and 3rd-party supplied
libraries*

-- /projects

-- /Project-A

- /inc
- /src
- Makefile
- /obj

-- /Project-B

-

-- /Project-X

-

-- /STARTUP

- startup_stm32l151xc.s
- STM32151XC_FLASH.ld

-- /documentation

*Typically,
user would customize
these files*

Software : BlueFrogV2-Lib Contents

/BlueFrogV2-Lib

-- /libraries

-- /src

-- /Board_Support

-- /LBF_API

-- /Debug_Utilitys

-- /Sensor_APis

-- /LBF_USB_MassStorage

-- /LBF_DataFlash_FatFS

-- /LBF_StemWin

-- /inc

-- <same structure>

> IO configuration routines
> On-chip peripheral inits
> On-board chip inits
*(fixed and selective – based on
user configuration files in /Project-xx)*

Low-level API functions
For access to on-board hardware and
busses (LED, Switches, Data Flash,
I2C, ...)

Adaptation layer between ST-supplied
middleware and La BlueFrog
*(any file that is a « template » in ST
deliverable or needed customization is
here)*

Software : User Project Contents

/projects

-- / <project name>

-- /src

-- /main.c

-- /<other_user_files>.c

-- /stm32_it.c

-- /inc

-- /stm32_it.h

-- /User_Configuration.h

-- /IT_Priorities_UserDefinable.h

-- /obj

-- Makefile

-- BriefDesc.txt

> Proposed template does full board initialization and leaves user concentrate on his/her application.

Interrupt request handlers & associated callback functions.
Template proposed.

User defined configurations (thru #define 's), esp. ::
- enable/assign extension header pins & related parameters (e.g. bitrates etc.)
- OLED and BTLE usage

User modifiable priorities of all LBF potential interrupt sources.
All defined in this single central file.