

Revision History:

Ver.: 3.2.1 09.08.22:

Features

- LED simulator
- Selectrix support for ESP32
- ColorPicker for Const Makro
- Macro RGB_Heartbeat_Color
- MobaLedLib Extensions support
- "Virtual pin" feature
- Retrigger support for patterns using GOTO mode
- DCC signal state signaled with ESP32 onboard LED

Enhancements

- fix CAN baudrate issue with ESP32 V1 chips
- fix ESP32 build issue with non-default Arduino home directory
- fix issue in case Arduino home directory doesn't exist
- add missing macros InCh_toTmpVar1 and BinCh_toTmpVar1
- fix RandMux bug on ESP32
- fix Set_ColTab bug on ESP32
- fix issue that Analog Pattern flags were ignored in Goto mode

Ver.: 3.1.0 28.11.21:

Features

- New TreeView based macro selection dialog with grouping and icons
- Add feature to control sound modules attached to the mainboard
- Add ServoMP3 feature - sound modules are attached to the servo board and controlled via serial line
- Add feature Pin_Alias
- Add #define SWITCH_DAMPING_FACT to the Lib_Macros
- Add possibility to scroll with the mouse in the description box of the TreeView dialog
- UserForm_Other is resizable now

Enhancements

- Show please wait screen when loading/updating the tree view
- The macro filter is also activated by typing letters in the list box
- Remove NmraDCC library installation workaround as version 2.0.10 fixes the ESP32, no more need to install from private repository
- Add sheet Platform_Parameters containing all platform dependent settings
- Add Raspberry Pico Mainboard Leds, Mainboard Buttons, PushButtons
- Add experimental Raspberry Pico support
- Disable Autodetect when changing CPU type to ESP32 or Pico
- Change width of Form and new pos for Buttons at Form Other
- Splited the installation of several board packages into separate calls

because otherwise the installation fails.

Update the filter if a row is selected which already contains a macro to show the macro

Improved the scrolling in the userform others

Added a scroll bar to description in the TreeView dialog

As ESP32 is no longer experimental set library U8g2 to mandatory

Motorola II protocol for interface Arduino

Allow relative path in ImageBoxAdder

Reload all Icons when running GenReleaseVersion

Support of BETA update directly from github

Add the build date as a tooltip to the version information cell

Add Excel version check

Add library external command processing

Bugfixes

Solved problem if the user has no additional board installed. In this case the "packages" directory has to be created in

C:\Users<Name>\AppData\Local\Arduino15\

Adapted the cmd files to work with 32 bit windows (Arduino is installed to "Program Files" and not to "Program Files (x86)")

Corrected start focus and tab index of the Userform_Other (Prior sometimes the 'Abort' button had the focus)

Added "On Error Resume Next" to prevent crash with Office 365 in EnableDisableAllButtons()

Replaced ".Add2" by ".Add" in Sort_by_Column because this new function is not supported by Office 365

(Hopefully) prevent formatting the "Start LEDNr" as date by setting the NumberFormat to "General" when importing files.

Fixed bug when loading the Excel File. The Pattern Configurator icons in the lines have been deleted

Fix issue on Scroll in UserForm_Other (focus lost)

Prevent crash when the TreeView is closed with the 'x' button and reopened again

Fix some typos in start page text

Fix issue that load of old configuration was not started while a Beta update

Fix issue #6894 BetaUpdate won't run with UserDir containing blank chars

Fix LED_to_var - Led_Offs to 31. See #6899

Fix VB6 FindWindow Issue #6914

Fix another VB6 Issue in Userform_RunProgram

Workaround for Excel 2007 isNumericBug

Add missing EspSoftwareSerial library

Fix Platform_Parameters: with AM328 SPI Pins are only usable if no CAN module is in use

Ver.: 3.0.0 21.04.21:

Release support of ESP32 and up to 49152 single LEDs

Support controlling DMX512 devices (up to 300 per channel)

Bootloader Update and "New Bootloader full Mem"

Up to nine independent LED channels
Search function in macro selection
TinyUniProg improvements
Fixed problem scaling the house dialog for small screens (1366x768)
Added seven new railway signal macros
Ability to switch the LED portocol to WS2811 where the Red and Green channel are swapped
Faster method to download and execute the color test program
Use only one column for start led number display, may be configured on config page
Add Macro `#define COMMANDS_DEBUG` traces DCC messages
Corrected the "fire" macro
Fix issue where directory names contain blanks
Fix DCC offset problem when sending simulated DCC commands
Speed up `ResetTestButtons` function
And many, many more features and bugfixes, ... Let yourself be surprised!

Ver.: 2.1.1 14.11.20:

Removed the old Debug functions to simulate DDC commands
`TEST_PUSH_BUTTONS()`, `TEST_TOGGLE_BUTTONS()` and `TEST_BUTTONS_INCH()`
Experimental support for ESP32 added

Ver.: 2.1.0 02.11.20:

8% additional configuration memory by changing the reserved size of the fast bootloader from 2K to 512 byte
Corrected the support for 64 time entries in the `pattern_Configurator`. Unfortunately the prior changes have been made in a wrong worksheet and not in the Main sheet => They have been lost when the release version was build ;-(
Corrected the importing of data from old `Prog_Generator`
Define at least 20 LEDs to be able to test them with the color test program
Disabling the Event which is called when Enter is pressed when the workbook is closed. Hopefully this solves the problem that the `Pattern_Config` is opened sometimes unintentionally
Prevent crash if a wrong formula is entered like "-Test"
Updating the arduino type in the "Options" dialog if the USB Port detection is started
`Charlie_Buttons` and `Charlie_Binary` control 3 channels (RGB) instead of 2 (GB)
Corrected the maximal time for the `Blinker` function by adding `PF_SLOW`
Disable the mouse scroll function for Office <= 2007 because here excel generates a crash

Ver.: 2.0.0 18.10.20:

Support for the new buffer gate on mainboard version 1.7 added

Ver.: 1.9.6 K 16.10.20:

Don't gray out the other rooms in the House/Gaslight dialog. Instead the important buttons use bold font

User interface:

Corrected the entering of selextrix data and the position of the USB simulation buttons

Corrected the "Dialog" Button. The "Type selection" dialog was called twice in DCC mode.

Disabled the "ENABLE_CRITICAL_EVENTS_WB" to hopefully get rid of the crash which is generated if lines are deleted in the Pattern_Configurator. By disabling this events the LED numbers are not updated if lines are hidden or shown again.

Corrected the NEON_DEF2D entry. Channel 1 was used instead of channel 2. This caused the occupation of a new RGB channel if NEON_DEF1D and NEON_DEF2D was used in a sequence

Improve the detection probability in "DetectArduino()". Prior the arduino was not always detected at the first trial.

Corrected the error detection for the ATtiny upload

Increased the number of Time entries from 30 to 64 and corrected the entries 24-30

New Charliplexing software which supports the 64 time channels

Ver.: 1.9.6 J 11.10.20:

The Mainboard_LED function also accepts the arduino pin numbers D2-D5, D7-D13 and A0-A5

Ver.: 1.9.6 I 10.10.20:

Possibility added to ignore problems with the baud rate detection

Ver.: 1.9.6 H 10.10.20:

Improved the loading of MLL_pgf files

Ver.: 1.9.6 G 10.10.20:

Added additional pins to the Mainboard_LED function. Now nearly every pin could be used as LED pin (New channels 0, 5-16).

New method "LED_to_Var()" to set variables controlled by the LED values.

Improved the "Mainboard_Hardware_Test.MLL_pgf". Now the mainboard could be tested without the PushButton4017 board.

Ver.: 1.9.6 F 07.10.20:

Programming of the fast bootloader added

Jürgen has added "Update_Start_LedNr" to the end of Read_PGF_from_String_V1_0() because otherwise NUM_LEDS is 0

New function "Mainboard_LED(MB_LED, InCh)" which could be used to use the

mainboard LEDs as status LEDs

Added macro "WeldingCont()" which continuously flickers while the input is active.

Don't use the Heartbeat LED at PIN A3 if the CAN bus is used AND the SwitchB or SwitchC is used.

Generate an error message if Mainboard_LED(4..) is used together with SwitchB or SwitchC.

Created an example file to test the MobaLedLib main board:

"Mainboard_Hardware_Test.MLL_pgf" This file is stored in the directory "Prog_Generator_Examples" which is copied to the library destination at startup.

Added DayAndNightTimer which could be used with then Scheduler function

Ver.: 1.9.6 E 07.08.20?:

Deleted >100000 columns in the DCC sheet which slowed down the loading of .MLL_pfg files

Added a status display when loading the .MLL_pfg files

Don't read/save the "Examples sheet from/to .MLL_pfg file

Ver.: 1.9.6 D 04.08.20:

Limit the maximal servo value to 210 (Old 220) to avoid problems with measurement errors at 2kHz

Additional Delay and check if the old directory has been deleted when updating the Beta version

Ver.: 1.9.6 C 28.07.20:

Corrected Servo programming (Flash was erased when setting the Reset pin as output)

Corrected decimal separator problem when loading pattern examples

New macros for servo with SMD WS2811 Herz_BiRelais_V1...

Ver.: 1.9.6 22.07.20:

Preview LEDs in the Pattern_Configurator could be moved on top of a picture or under a transparent picture (by Misha)

Speedup building and uploading of the Arduino program 10 sec. instead of 23 sec. (by Juergen)

Ver.: 1.9.5 15.06.20:

The versions 1.0.2 - 1.9.4 are not released test versions.

Since there are a huge number of changes since version 1.0.1 all details are described here:

<https://www.stummiforum.de/viewtopic.php?f=7&t=165060&sd=a&start=2410>

Ver.: 1.9.4 14.06.20:

Added Misha's Multiplexer to the Prog_Generator

Ver.: 1.0.7 07.06.20:

Corrected the LED Animation, the "Start LedNr" in combination with "HerzHerz_BiRelais()"

Ver.: 1.0.6 06.06.20:

Added Mishas LED Preview and Mux functions to the Pattern_Configurator
Using Harolds new pyProgGen_MobaLedLib
Using the new USB port detection also in the Pattern_Configurator

Ver.: 1.0.5 31.05.20:

Automatically install all libraries
Using the Sketchbook path for the working directory

Ver.: 1.0.4 23.05.20:

Automatically detecting COM port the Arduino is connected to
Improved the HV_Reset() in the Tiny_UniProg according to Juergens tipp
New macros InCh_to_TmpVar1() and Bin_InCh_to_TmpVar1() which start with state 1 instead of 0
New macros for Servos and Herzstueck polarisation
New Push Button macros which read DCC and hardware buttons
Added macros Andreaskreuz with lamp test

Ver.: 1.0.3 01.05.20:

Test of additional LED channels and EEPROM Storage

Ver.: 1.0.2 18.04.20:

Test of switch and variables

Ver.: 1.0.1 17.01.20:

Corrected the upload in version 1.0.0 because some files have not been update ;-(

Ver.: 1.0.0 16.01.20:

New Charlieplexing program for the Servo_LED module which could be used to drive Viessmann and other "Multiplexed" light signals
Configuration upload from the Pattern_Configurator over the LEDs "Bus" to the Charlieplexing module. The module is configured on the railway layout.
Direct programming support for the Tiny_UniProg module from excel (One click to install the software)
Flashing of the software for the Charlieplexing Module from excel (One

click to install the software)

- Enhanced Color Test program with a lot of new features
- New Black and White TV simulation (configurable)
- Simulation of defective neon lights added
- 1001 of other small changes and improvements

Ver.: 0.9.3 08.12.19:

- Engagement of Pattern_Configurator and Program_Generator => Easy exchange between the tools
- CheckColors function: Live view of the colors and brightness of the LEDs
- Existing lines could be edited in the Prog_Generator

Ver.: 0.9.2 30.10.19:

- Corrected the XPattern function (used in the Light signals)
- Corrected the Excel Programs

Ver.: 0.9.1 06.10.19:

- Corrected the functions Flash(), RandWelding() and PushButton_w_LED_0_? in the Prog_Generator
- Corrected single LEDs in the House() and GasLights() function.

Ver.: 0.9.0 27.09.19:

- New Excel User interface to configure the LEDs
- Single LED functions for the House() macro
- Macros for Light signals, Construction lightning, ... added to the library

Ver.: 0.8.0 16.07.19:

- Added new assembly document for the main PCB from Alf and Armin

Ver.: 0.7.9 09.07.19: Moved the Pattern_Configurator to the „extras“ directory and updated the excel version.

- Nice graphical display of the LED brightness and the Goto mode
- Reduced the size by extracting the examples
- Added a menu to save/load/delete example sheets
- User interface is automatically switched to English (Example descriptions still German)

Ver.: 0.7.8 09.04.19:

- Added examples
 - 00.Overview
 - 25.Analog_Push_Button

Ver.: 0.7.7 17.02.19:

Added Support for Sound modul JQ6500
Corrected the random mode of the Counter() function
Improved the serial input debug function
Moved the Heartbeat function in own H-file"
12.03.19:
added ButtonNOff() macro

Ver.: 0.7.5 19.01.19:

Added examples:
Burning house (Push button action with fire, smoke, sound and fire truck). Shown in the video: <https://vimeo.com/311006857>
DCC (Digital Command Control) decoder example with two Arduinos. Shown in the video: <https://vimeo.com/311996452>
Added function Bin_InCh_to_TmpVar() and RGB_Heartbeat2()
Added zip file with the RGB LED distribution PCBs
Improved the fire algorithm
Corrected the binary mode of the counter (CF_BINARY)
Corrected the initialization of the Pattern function if the Goto mode is used.
Updated the English documentation to the same state like the German.
Using the correct version of the Pattern_Configurator.xlsb

Ver.: 0.7.0 20.12.18:

First released version

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Last update: **2023/05/26 14:53**

