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NXP GUI Guider Graphical Interface Development User Guide

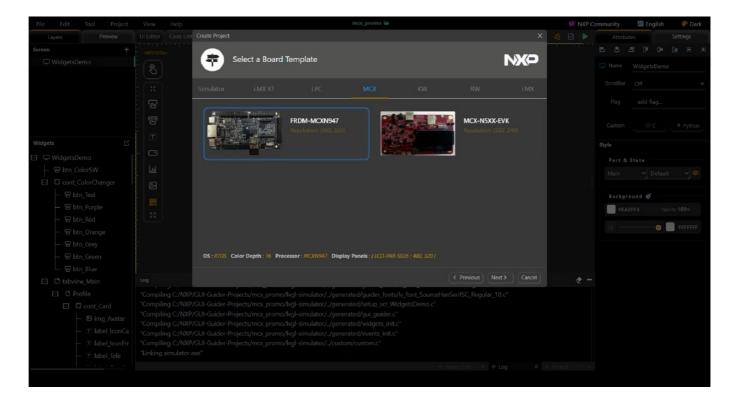
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NXP GUI Guider Graphical Interface Development



Document information

Information	Content
Keywords	GUI_GUIDER_RN, IDE, GUI, MCU, LVGL, RTOS
Abstract	This document describes the released version of GUI Guider along with the features, bug fixes, and known issues.

Overview

GUI Guider is a user-friendly graphical user interface development tool from NXP that enables the rapid development of high-quality displays with the open-source LVGL graphics library. The drag-and-drop GUI Guider editor makes it easy to utilize the many features of LVGL, such as widgets, animations, and styles, to create a GUI with minimal or no coding at all. With the click of a button, you can run your application in a simulated environment or export it to a target project. Generated code from GUI Guider can easily be added to an MCUXpresso IDE project, accelerating the development process and allowing you to add an embedded user interface to your application seamlessly. GUI Guider is free to use with the NXP general purpose and crossover MCUs and includes built-in project templates for several supported platforms.

GA (Released on 31 March 2023)

New Features (Released on 31 March 2023)

- UI Development Tool
 - Multi-instance
 - Event setting for image and textarea
 - Enable runtime memory monitor
 - Widget visibility setting
 - Move widgets between screens
 - Container inside tab view and tile view
 - · Custom options for ly conf.h

- Improved prompt of "Run Simulator" / "Run Target"
- · Progress bar of "export project"
- Save custom colour
- Add widgets by mouse click in expand mode
- Horizontal/vertical widget distribution
- More shortcut functions in mouse right-click
- Support direct project deletion
- Flexible resource tree window
- New demos: air conditioner and progress bar
- Improved existent demos
- Supplement entry arrow for subitems
- · benchmark optimization
 - I. MX RT595: defaults to SRAM frame buffer
 - Reduce redundant code of GUI application
- Toolchain
 - MCUX IDE 11.7.1
 - MCUX SDK 2.13.1
- Target
 - i.MX RT1060 EVKB
 - I. MX RT595: SRAM frame buffer
 - I. MX RT1170: 24b color depth

Host OS

Ubuntu 22.04

Bug fix

LGLGUIB-2517: The image position is not displayed correctly in the simulator Set the image to one position. It shows a little deviation in the simulator. The position is correct when running on the development board.

Known Issues

- LGLGUIB-1613: An error message in the log window appears after successfully running "Run Target" on macOS An error message appears on the log window when "Run Target" is completed on macOS, even if the APP is deployed successfully on the board.
- LGLGUIB-2495: The simulator display of the RT1176 (720×1280) demo is out of the screen
- When running the simulator of the RT1176 demo with default display (720×1280), the simulator is out of the screen and cannot display all content. The workaround is to change the host display scale setting to 100 %.
- LGLGUIB-2520: The panel type is wrong when running the demo on the target With an RT1160-EVK with RK043FN02H panel, create an example of GUI Guider and select the RT1060- EVK board and RK043FN66HS panel.
- Then, execute "RUN" > Target "MCUXpresso". The GUI can be shown on display. When exporting the project and deploying it by MCUXpresso IDE, there is no GUI display on the panel.

V1.5.0 GA (Released on 18 January 2023)

New Features (Released on 18 January 2023)

- UI Development Tool
 - · Image converter and binary merger
 - Resource manager: image, font, video, and Lottie JSON
 - Shortcut of bringing widget to top or bottom
 - Display the base template in the project information window
 - · Store image binary in QSPI flash
 - Single keyboard instance
 - Prompt of project backup before upgrade
 - · Widget actions on-screen load
 - Screen events setting
 - Display GUI Guider version
 - Memory size optimization for multi-page application
 - Display icon and line in the resource tree
 Flexible widgets window
 - Resize window by mouse dragging
 - · Comments in lv conf.h
- Library
 - LVGL v8.3.2
 - Video widget (selected platforms)
 - Lottie widget (selected platforms)
 - QR code
 - Text progress bar

Toolchain

- MCUX IDE 11.7.0
- MCUX SDK 2.13.0
- Target
- MCX-N947-BRK
- I. MX RT1170EVKB
- LPC5506
- · MX RT1060: SRAM frame buffer

Bug fix

- LGLGUIB-2522: Must reset the platform manually after running Target with Keil When creating an example (printer) of GUI Guider, which selects RT1060-EVK board and RK043FN02H panel, execute "RUN" > Target "Keil".
- The log window shows "undefined", so the board must be reset manually to run the example.
- LGLGUIB-2720: The behaviour of the Carousel widget in the MicroPython simulator is incorrect When adding an image button in the carousel and clicking the widget, the status of the image button is displayed abnormally.

- LGLGUIB-1613: An error message in the log window appears after successfully running "Run Target" on macOS
- An error message appears on the log window when "Run Target" is completed on macOS, even if the APP is deployed successfully on the board.
- LGLGUIB-2495: The simulator display of the RT1176 (720×1280) demo is out of the screen
- When running the simulator of the RT1176 demo with default display (720×1280), the simulator is out of the screen and cannot display all content. The workaround is to change the host display scale setting to 100 %.
- LGLGUIB-2517: The image position is not displayed correctly in the simulator Set the image to one position. It shows a little deviation in the simulator. The position is correct when running on the development board.
- LGLGUIB-2520: The panel type is wrong when running the demo on the target With an RT1160-EVK with RK043FN02H panel, create an example of GUI Guider and select the RT1060- EVK board and RK043FN66HS panel.
- Then, execute "RUN" > Target "MCUXpresso". The GUI can be shown on display. When exporting the project and deploying it by MCUXpresso IDE, there is no GUI display on the panel.

V1.4.1 GA (Released on 30 September 2022)

New Features (Released on 30 September 2022)

- UI Development Tool
 - Non-deformation screen preview
 - Display the size of the imported image
 - · Description, type, and doc link in the attribute window
 - Move the editor's position with the mouse
 - Pixel scale in the editor window
 - Demo of runtime image (SD) decodes I. MX RT1064, LPC54S018M

 Demo of video (SD) play: i.MX RT1050
 - Improved name, default value, and prompt for attributes
 - Submenu of license
 - Prompt of code override
 - Autofocus on the new widget in the editor
 - · Improved mouse-based image rotation feature
 - · Auto-detect for custom. c and custom.h
 - Improved robustness and stability
- Library
 - Data text box widget
 - · Calendar: highlight the selected date
- Target
 - NPI: i.MX RT1040
- Toolchain
 - MCUXpresso IDE 11.6.1
 - MCUXpresso SDK 2.12.1
- RTOS
 - Zephyr
- Bug fix

- LGLGUIB-2466: [Widget: Slider] V7&V8: Slider outline opacity works abnormally in editor
- When setting the outline opacity of the slider widget to 0, the outline is still visible in the editor.

Known Issues

- LGLGUIB-1613: An error message in the log window appears after successfully running "Run Target" on macOS
- An error message appears on the log window when "Run Target" is completed on macOS, even if the APP is deployed successfully on the board.
- LGLGUIB-2495: The simulator display of the RT1176 (720×1280) demo is out of the screen When running the simulator of the RT1176 demo with default display (720×1280), the simulator is out of the screen and cannot display all content.
- The workaround is to change the host display scale setting to 100 %.
- LGLGUIB-2517: The image position is not displayed correctly in the simulator Set the image to one position. It shows a little deviation in the simulator. The position is correct when running on the development board.
- LGLGUIB-2520: The panel type is wrong when running the demo on the target With an RT1160-EVK with RK043FN02H panel, create an example of GUI Guider and select the RT1060- EVK board and RK043FN66HS panel.
- Then, execute "RUN" > Target "MCUXpresso". The GUI can be shown on display. When exporting the project and deploying it by MCUXpresso IDE, there is no GUI display on the panel.
- LGLGUIB-2522: Must reset the platform manually after running Target with Keil When creating an example (printer) of GUI Guider, which selects RT1060-EVK board and RK043FN02H panel, execute "RUN" > Target "Keil". The log window shows "undefined", so the board must be reset manually to run the example.
- LGLGUIB-2720: The behaviour of the Carousel widget in the MicroPython simulator is incorrect When adding an image button in the carousel and clicking the widget, the status of the image button is displayed abnormally.

V1.4.0 GA (Released on 29 July 2022)

New Features (Released on 29 July 2022)

- UI Development Tool
 - Unified layout of attribute setting UI
 - Shadow settings
 - The custom ratio of GUI resize
 - More themes and system settings
 - Zoom out < 100 %, mouse control
 - Easily set the default screen
 - · Horizontal align and align line
 - Screen and image preview
 - Batch image import
 - · Rotate the image withthe mouse
 - Defaults to the new display
 - Project restructure
 RT-Thread
- Widgets

- LVGL v8.2.0
- Public: menu, rotary switch(arc), radio button, Chinese input
- Private: carousel, analog clock

Performance

- Optimized performance template of i.MX RT1170 and i.MX RT595
- Size optimization by compiling used widgets and dependency

Target

- LPC54628: external flash storage
- i.MX RT1170: landscape mode
- RK055HDMIPI4MA0 display

Toolchain

- MCUXpresso IDE 11.6
- MCUXpresso SDK 2.12
- IAR 9.30.1
- Keil MDK 5.37

Bug Fixes

- LGLGUIB-1409: Random framing error Occasionally the top menus may be cut off after widgets add and delete operations in the UI editor. Currently, no other detail regarding this issue is available. The only known solution if this issue occurs is to close and reopen the GUI Guider application.
- LGLGUIB-1838: Sometimes svg image is not imported correctly Sometimes the SVG image is not imported correctly in GUI Guider IDE.
- LGLGUIB-1895: [Shape: colour] level-v8: The colour widget distorts when it has a large size When using
 the colour widget of LVGL v8, the widget distorts when the colour widget size is large.
- LGLGUIB-2066: [imgbtn] Can select multiple images for a state
- When selecting images for the different states of an image button (Released, Pressed, Checked Release, or Checked Pressed), it is possible to select multiple images in the selection dialogue box. The selection box should only highlight the last selected image. LGLGUIB-2107: [GUI Editor] GUI Editor design is not the same as the simulator or target results When designing a screen with a chart, the GUI editor design may not match the results when viewing in the simulator or on a target.
- LGLGUIB-2117: The GUI Guider simulator generates an unknown error, and the UI application cannot respond to any event When developing multi-screen applications with GUI Guider, the three screens can be switched by clicking a button. After several times of screen switching, the simulator or board excites abnormally and reports an unknown error, and the demo could not respond to any event.
- LGLGUIB-2120: Filter recolour does not work on the design screen The filter recolour feature does not show
 correctly in the design windows. When an image is added with the original colour of white, the filter changes the
 colour to blue. The design window shows that all the images, including their background, switch to the new
 colour. The expectation is that the background should not change.
- LGLGUIB-2121: Font size could not be larger than 100 The font size could not be larger than 100. In some GUI applications, a larger font size is needed.
- LGLGUIB-2434: Calendar display misplaced When using the tab view as the overall background, after adding
 the calendar in content2, it is not shown correctly, no matter how the calendar is resized. The same issue
 occurs in both the simulator and board.
- LGLGUIB-2502: Unable to change the BG colour of the list item on the drop-down list widget The background

colour for the list label in the drop-down list widget cannot be changed.

Known Issues

- LGLGUIB-1613: An error message in the log window appears after successfully running "Run Target" on macOS
- An error message appears on the log window when "Run Target" is completed on macOS, even if the APP is deployed successfully on the board.
- LGLGUIB-2495: The simulator display of the RT1176 (720×1280) demo is out of the screen
- When running the simulator of the RT1176 demo with default display (720×1280), the simulator is out of the screen and cannot display all content. The workaround is to change the host display scale setting to 100 %.
- LGLGUIB-2517: The image position is not displayed correctly in the simulator Set the image to one position. It shows a little deviation in the simulator. The position is correct when running on the development board.
- LGLGUIB-2520: The panel type is wrong when running the demo on the target
- With an RT1160-EVK with RK043FN02H panel, create an example of GUI Guider and select the RT1060-
- EVK board and RK043FN66HS panel. Then execute "RUN" > Target "MCUXpresso". The GUI can be shown on display. When exporting the project and deploying it by MCUXpresso IDE, there is no GUI display on the panel.
 - LGLGUIB-2522: Must reset the platform manually after running Target with Keil When creating an example (printer) of GUI Guider which selects RT1060-EVK board and RK043FN02H panel, execute "RUN" > Target "Keil". The log window shows "undefined" and therefore the board must be reset manually to run the example.

V1.3.1 GA (Released on 31 March 2022)

New Features (Released on 31 March 2022)

- UI Development Tool
 - Wizard for creating project
 - GUI auto-scaling
 - Selectable display with a custom option
 - 11 new fonts: including Arial, Abel, and more
 - Defaults to Arial font in demos
 - Memory Monitor
 - Camera preview APP on i.MX RT1170
 - Group widgets move
 - Container copy
- · Incremental compile
- Widgets
 - Animated analog clock
 - Animated digital clock
- Performance
 - Build time optimization
 - · Perf option: size, speed, and, balance
 - Performance chapter in User Guide
- Target

- I. MX RT1024
- LPC55S28, LPC55S16
- Toolchain
 - MCU SDK v2.11.1
 - MCUX IDE v11.5.1

Bug Fixes

- LGLGUIB-1557: The copy/paste function of the container widget should apply to all its child widgets GUI
 Guider copy and paste operations were applicable only for the widget itself and were not included for the
 children. For example, when a container was created and a slider was added as a child, copying and
 pasting the container, resulted in a new container. However, the container was without a new slider. The
 copy/paste function of the container widget is now applied to all the child widgets.
- LGLGUIB-1616: Improve the UX of the widget move up/down in the resource window On the Resource
 tab, a screen may contain many widgets. It was inefficient and inconvenient to move up a widget
 resource from the bottom to the top of the widgets list on the screen. It was only possible after a step-bystep mouse click. To provide a better experience, the drag-and-drop feature is now supported for it.
- LGLGUIB-1943: [IDE] The start position of the line is incorrect in the editor When setting the start position
 of the line to (0, 0), the start position of the widget is incorrect in the editor. However, the position is
 normal in the simulator and target.
- LGLGUIB-1955: No previous screen button on the second screen of the screen transition demo For the screen transition demo, the text of the button on the second screen should be "previous screen" instead of "next screen".
- LGLGUIB-1962: Memory leak in auto-generated code There is a memory leak in the code generated by GUI Guider. The code creates a screen with lv_obj_create() but calls lv_obj_clean() to delete it.
 Lv_obj_clean deletes all the children of an object but not the object causing the leak.
- LGLGUIB-1973: The code of events and actions of the second screen is not generated
- When a project is created including two screens with one button on each, and the event and action are set to navigate between these two screens by the button event; the code of the "Load Screen" event of the second screen's button is not generated.

- LGLGUIB-1409: Random framing error
 - Occasionally the top menus may be cut off after widgets add and delete operations in the UI editor. Currently, no other detail regarding this issue is available. The only known solution if this issue occurs is to close and reopen the GUI Guider application.
- LGLGUIB-1613: An error message in the log window appears after successfully running "Run Target" on macOS
- An error message appears on the log window when "Run Target" is completed on macOS, even if the APP is deployed successfully on the board.
- LGLGUIB-1838: Sometimes svg image is not imported correctly Sometimes the SVG image is not imported correctly in GUI Guider IDE.
- LGLGUIB-1895: [Shape: colour] level-v8: The colour widget distorts when it has a large size When using the colour widget of LVGL v8, the widget distorts when the colour widget size is large.

V1.3.0 GA (Released on 24 January 2022)

New Features

- UI Development Tool
 - Two LVGL version
 - 24-bit color depth
 - Music player demo
 - Multi-themes
 - Enable/disable FPS/CPU monitor
 - Screen attributes setting
- Widgets
 - LVGL 8.0.2
 - MicroPython
 - 3D animation for JPG/JPEG
 - Drag and drop design for tile view
- Toolchain
 - New: Keil MDK v5.36
 - Upgrade: MCU SDK v2.11.0, MCUX IDE v11.5.0, IAR v9.20.2
- Supported OS
 - macOS 11.6
- Bug Fixes
 - LGLGUIB-1520: Blank screen appears when Gauge is added in the tab view and needle value is changed
 - A blank screen appears in the IDE on clicking the editor after adding the gauge widget as a child of the tabview object and setting the needle value. The workaround is to restart GUI Guider.
 - LGLGUIB-1774: Issue adding calendar widget to project
 - Adding a calendar widget to a project causes an unknown error. The name of the widget is not properly
 updated. GUI Guider attempts to process a widget name screen_calendar_1 but the calendar is on
 scrn2. It should be scrn2_calendar_1.
- LGLGUIB-1775: Typo in the system information
- In the "System" setting of GUI Guider IDE, there is a typo in "USE PERE MONITOR", it should be "REAL TIME PERF MONITOR".
- LGLGUIB-1779: Build error when project path contains a space character When there is a space character in the project path, the project build fails in GUI Guider.
- LGLGUIB-1789: [MicroPython simulator] Blank space added in the roller widget The roller widget simulated with MicroPython adds a blank space between the first and last list item.
- LGLGUIB-1790: ScreenTransition template fails in 24 bpp building in IDE
- To create a project in GUI Guider, select lvgl7, RT1064 EVK board template, ScreenTransition app template, 24-bit colour depth and 480*272.
- Generate the code and then export the code to IAR or MCUXpresso IDE. Copy the generated code to SDK lvgl_guider project and build in IDE. An incorrect screen appears and the code gets stuck in MemManage_Handler.

- LGLGUIB-1409: Random framing error Occasionally the top menus may be cut off after widgets add and delete operations in the UI editor.
- Currently, no other detail regarding this issue is available. The only known solution if this issue occurs is to close and reopen the GUI Guider application.
- LGLGUIB-1613: An error message in the log window appears after successfully running "Run Target" on macOS
- An error message appears on the log window when "Run Target" is completed on macOS, even if the APP is deployed successfully on the board.

V1.2.1 GA (Released on 29 September 2021)

New Features

- UI Development Tool
 - LVGL built-in themes
- Toolchain
 - MCU SDK 2.10.1
- New Target / Device Support
 - I. MX RT1015
 - I. MX RT1020
 - I. MX RT1160
 - i.MX RT595: TFT Touch 5" display
- Bug Fixes
 - LGLGUIB-1404: Export files to the specified folder
 - When using the code export function, GUI Guider forces the exported files into a default folder instead of the folder specified by users.
 - LGLGUIB-1405: Run Target does not reset and run the application When IAR is selected from the "Run Target" feature, the board does not reset automatically after image programming.
 - The user must manually reset the EVK using the reset button once the programming has been completed.

LGLGUIB-1407

[Tileview] Child widgets are not updated in real-time When a new tile is added in the tile view widget, the widgets tree in the left panel of GUI Guider is not refreshed if no child widget is added in the new tile. A child widget must be added to the tile for it to appear in the leftmost panel.

LGLGUIB-1411

ButtonCounterDemo application performance issue When buttonCounterDemo is built for LPC54S018 by using IAR v9.10.2, poor application performance may be experienced. When pressing one button and then the other, there is a noticeable delay of ~500 ms before the screen updates.

LGLGUIB-1412

Building demo applications may fail If the Export code feature is used to export code of GUI APP without running "Generate Code" first, the build fails after importing the exported code in MCUXpresso IDE or IAR.

LGLGUIB-1450

Error in GUI Guider uninstaller If there are multiple installations of GUI Guider on a machine, the uninstaller fails to distinguish between those installations. For example, running the uninstaller of v1.1.0 may result in the removal of v1.2.0.

LGLGUIB-1506

The state of the previously pressed image button is not refreshed after pressing another image button When one button is pressed, and another one is also pressed, the state of the last pressed button does not change. The effect is that multiple image buttons are in the pressed state simultaneously.

Known Issues

- LGLGUIB-1409: Random framing error Occasionally the top menus may be cut off after widgets add and delete operations in the UI editor. Currently, no other details are available regarding this issue. The only known solution if this issue occurs is to close and reopen the GUI Guider application.
- LGLGUIB-1520: A blank screen appears when the Gauge is added in the tab view and the needle value is changed A blank screen appears in the IDE on clicking the editor after adding the gauge widget as a child of the tab view object and setting the needle value. The workaround is to restart GUI Guider.

9 V1.2.0 GA (Released on 30 July 2021)

New Features

- UI Development Tool
 - Widget search
 - Custom font size
 - UG for board support without a template
- Widgets
 - LVGL 7.10.1
 - Events for buttons of the list
 - · Memory leak check
- Toolchain
 - IAR 9.10.2
 - MCUX IDE 11.4.0
 - MCUX SDK 2.10.x
- Acceleration
 - Image converter for VGLite performance augment

New Target / Device Support

- LPC54s018m, LPC55S69
- I. MX RT1010

Bug Fixes

• LGLGUIB-1273: Simulator cannot display full screen when screen size is greater than host resolution

When the target screen resolution is greater than the PC screen resolution, the entire simulator screen cannot be viewed. In addition, the control bar is not visible so it is impossible to move the simulator screen.

- LGLGUIB-1277: The simulator is blank for I. MX RT1170 and RT595 project when a large resolution is selected
- When the large resolution, for example, 720×1280, is used to create a project for I. MX RT1170 and I. MX

RT595, the simulator is blank when the GUI APP is running in the simulator.

- The reason is that only a partial screen is displayed when the device screen size is larger than the PC screen resolution.
- LGLGUIB-1294: printer demo: Click does not work when icon image is clicked
- When the printer demo is running, there is no response when the icon image is clicked. This happens because the event trigger and action are not configured for the icon image.
- LGLGUIB-1296: The size of the text style is not to be exported in the list widget
- After setting the text size of the list widget in the attributes window of GUI Guider, the configured text size does
 not take effect when the GUI APP is running.

Known Issues

- LGLGUIB-1405: Run Target does not reset and run the application
- When IAR is selected from the "Run Target" feature, the board is not reset automatically after image
 programming. The user must manually reset the EVK using the reset button once the programming has been
 completed.
- LGLGUIB-1407: [Tileview] Child widgets are not updated in real-time When a new tile is added in the tile view widget, the widgets tree in the left panel of GUI Guider is not refreshed if no child widget is added in the new tile. A child widget must be added to the tile for it to appear in the leftmost panel.
- LGLGUIB-1409: Random framing error Occasionally the top menus may be cut off after widgets add and delete
 operations in the UI editor. No other details regarding this issue are available at this time. The only known
 solution if this issue occurs is to close and reopen the GUI Guider application.
- LGLGUIB-1411: ButtonCounterDemo application performance issue When buttonCounterDemo is built for LPC54S018 by using IAR v9.10.2, poor application performance may be experienced. When pressing one button and then the other, there is a noticeable delay of ~500 ms before the screen updates.
- LGLGUIB-1412: Building demo applications may fail If the Export code feature is used to export code of GUI
 APP without running "Generate Code" first, the build will fail after importing the exported code in MCUXpresso
 IDE or IAR.
- LGLGUIB-1506: The state of the previously pressed image button is not refreshed after pressing another image button
- When one button is pressed, and another one is also pressed, the state of the last pressed button does not change. The effect is that multiple image buttons are in the pressed state simultaneously. The workaround is to enable the Checked state for the image button through GUI Guider IDE.

V1.1.0 GA (Released on 17 May 2021)

New Features

- UI Development Tool
 - Menu shortcut and keyboard control
 - New states: FOCUSED, EDITED, DISABLED
 - Frame rate customization
 - Screen transition configuration
 - · Parent/children widgets
 - Callback function setting for animation image

- VGLite enablement on IDE
- Header path auto-config
- Widgets
 - BMP and SVG assets
 - 3D animation for PNG
 - Support tile view as a standard widget
- Acceleration
 - Initial VGLite for RT1170 and RT595
 - New Target / Device Support
 - I. MX RT1170 and i.MX RT595

Bug Fixes

- LGLGUIB-675: Animation refresh may not work well in the simulator sometimes
 The images of animation are not refreshed correctly in the simulator sometimes, the root cause is that the animation image widget does not handle image source changing properly.
- LGLGUIB-810: The animation image widget may have distorted hues
 During the operation of an animation widget, the animated image may have a discoloured hue in the background. The issue is caused due to the unhandled style properties.
- LGLGUIB-843: Erratic mouse operation when moving widgets when the UI editor is zoomed in When the UI editor is zoomed in, there may be erratic mouse operation when moving widgets in the editor.
- LGLGUIB-1011: The screen overlay effect is incorrect when screens of different sizes are switched When a second screen with an opacity value of 100 is created to cover the current screen (which is not deleted), the background screen effect is not displayed correctly.
- LGLGUIB-1077: Cannot display Chinese in the Roller widget
 When Chinese characters are used as row text in the roller widget, the Chinese are not displayed when the APP is running.

- LGLGUIB-1273: Simulator cannot display full screen when screen size is greater than host resolution
 When the target screen resolution is greater than the PC screen resolution, the entire simulator screen cannot be viewed. In addition, the control bar is not visible so it is impossible to move the simulator screen.
- LGLGUIB-1277: The simulator is blank for I. MX RT1170 and RT595 projects large resolution is selected
- When the large resolution, for example, 720×1280, is used to create a project for I. MX RT1170 and I. MX RT595, the simulator is blank when the GUI APP is running in the simulator. The reason is that only a partial screen is displayed when the device screen size is larger than the PC screen resolution.
- LGLGUIB-1294: printer demo: Click does not work when icon image is clicked
- When the printer demo is running, there is no response when the icon image is clicked. This happens because the event trigger and action are not configured for the icon image.
- LGLGUIB-1296: The size of the text style is not to be exported in the list widget
- After setting the text size of the list widget in the attributes window of GUI Guider, the configured text size does
 not take effect when the GUI APP is running.

V1.0.0 GA (Released on 15 January 2021)

New Features

• UI Development Tool

- Supports Windows 10 and Ubuntu 20.04
- Multi-language (English, Chinese) for IDE
- Compatible with LVGL v7.4.0, MCUXpresso IDE 11.3.0, and MCU SDK 2.9
- · Project management: create, import, edit, delete
- What You See Is What You Get (WYSIWYG) UI design by drag and drop
- Multi-page application design
- Shortcut of bring forward and backward, copy, paste, delete, undo, redo
- · Code viewer for UI definition JSON file
- The navigation bar to view the selected source file
- LVGL C code auto-generation
- Widget attributes group and setting
- Screen copy function
- GUI editor zoom in and zoom out
- Multiple font support and 3rd party font import
- Customizable Chinese character scope
- · Widgets alignment: left, centre, and right
- PXP acceleration enable and disable
- · Support default style and custom style
- Integrated demo applications
- Compatible with the MCUXpresso project
- Real-time log display

Widgets

- Supports 33 widgets
- Button (5): button, image button, checkbox, button group, switch
- Form (4): label, drop-down list, text area, calendar
- Table (8): table, tab, message box, container, chart, canvas, list, window
- Shape (9): arc, line, roller, led, spin box, gauge, line meter, colour, spinner
- Image (2): image, animation image
- Progress (2): bar, slider
- o Others (3): page, tile view, keyboard
- Animation: animation image, GIF to animation, animation easing, and path
- Support event trigger and action selection, custom action code
- Chinese display
- · Support default style and custom style
- New Target / Device Support
- NXP i.MX RT1050, i.MX RT1062, and i.MX RT1064
- NXP LPC54S018 and LPC54628
- Device template, auto-build, and auto-deploy for supported platforms
- Run simulator on X86 host

Known Issues

- LGLGUIB-675: Animation refresh may not work well in the simulator sometimes
 The images of animation are not refreshed correctly in the simulator sometimes, the root cause is that the animation image widget does not handle image source changing properly.
- LGLGUIB-810: The animation image widget may have distorted hues
 During the operation of an animation widget, the animated image may have a discoloured hue in the background. The issue is caused due to the unhandled style properties.
- LGLGUIB-843: Erratic mouse operation when moving widgets when the UI editor is zoomed in When the UI editor is zoomed in, there may be erratic mouse operation when moving widgets in the editor.
- LGLGUIB-1011: The screen overlay effect is incorrect when screens of different sizes are switched
 When a second screen with an opacity value of 100 is created to cover the current screen (which is not deleted), the background screen effect is not displayed correctly.
- LGLGUIB-1077: Cannot display Chinese in the Roller widget
 When Chinese characters are used as row text in the roller widget, the Chinese are not displayed when the APP is running.

Revision history

Table 1 summarizes the revisions to this document.

Table 1. Revision history

Revision number	Date	Substantive changes
1.0.0	15 January 2021	Initial release
1.1.0	17 May 2021	Updated for v1.1.0
1.2.0	30 July 2021	Updated for v1.2.0
1.2.1	29 September 2021	Updated for v1.2.1
1.3.0	24 January 2022	Updated for v1.3.0
1.3.1	31 March 2022	Updated for v1.3.1
1.4.0	29 July 2022	Updated for v1.4.0
1.4.1	30 September 2022	Updated for v1.4.1
1.5.0	18 January 2023	Updated for v1.5.0
1.5.1	31 March 2023	Updated for v1.5.1

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