CRANK®
AMETEK

Renesas Ready Ecosystem Partner Solution
CRANK | AMETEK® - Storyboard

RENESAS PARTNER NETWORK READY

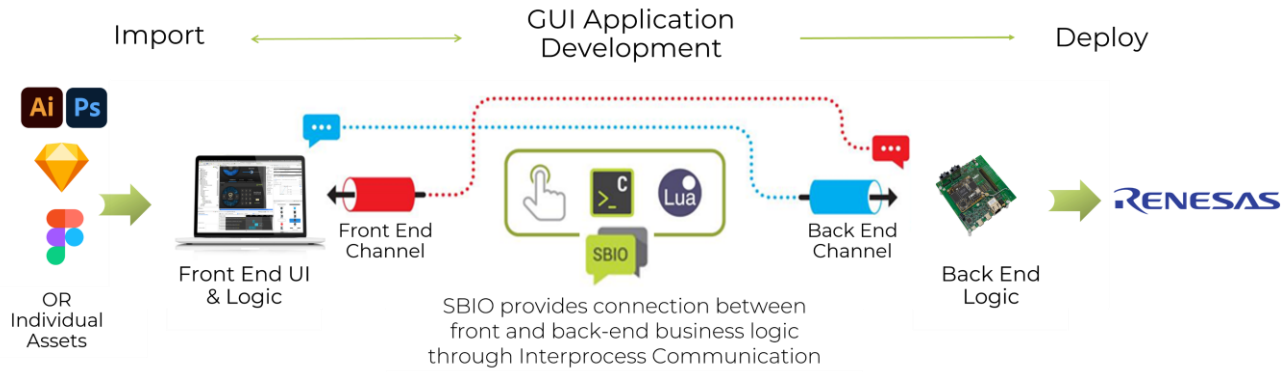
Solution Summary

Storyboard is an embedded GUI development framework for creating engaging HMI applications with exceptional user experiences. Its unique decoupled architecture makes it simple to develop, test, and make changes to HMI applications at any point during development, enabling development teams to refine the application without disrupting already completed work. Storyboard supports the RA Family MCUs, RZ/A Series MPUs, and RZ/G Series MPUs. Download demonstration software at Crank AMETEK website.

Features/Benefits

- **Accelerated UI Development:** Provides powerful development capabilities with low coding benefits. Create GUIs from scratch or import files directly from popular design tools, such as Figma, Photoshop, Illustrator and Sketch. Re-import changed design files without causing a complete teardown of code
- **Purpose-built for Collaboration:** Front-end design is decoupled from the back-end logic, enabling developers and designers to work in parallel without impacting each others' work
- **Integrated Testing Framework:** Makes the testing process more efficient. Integrate with Jenkins for an automated testing process
- **Project Scalability:** Create UIs optimized for a wide range of hardware types using a single tool and easily port them from one Renesas platform to another

Diagrams/Graphics



Target Markets and Applications

- Industrial controls
- Smart home / IoT
- Smart building
- Wearables
- Home appliances
- Consumer electronics
- Medical
- Kiosks
- Point-of-Sale terminals
- Automotive / Infotainment
- E-Bike

https://www.cranksoftware.com/Storyboard

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Storyboard is comprised of a graphical GUI design and development environment and a runtime engine that's optimized for Renesas hardware.
If any questions, please contact us.

- WYSIWYG user interface design
- Import and re-import design files directly into the Storyboard development workspace
- Design using standard formats for fonts and images
- GUI templates for standard user interface elements
- Create, edit, and preview animations directly in the workspace
- View gradients in tool before exporting
- Unique Compare and Merge tool for comparing design changes between iterations
- One-click application simulation on the desktop (no hardware required)
- Lua scripting engine with debugger
- Use C-callbacks for lighter design size
- Visual metrics on memory and storage used by resources
- Internationalization glyph and font compatibility
- GUI design report generation
- Direct-to-target (SCP) transfer for faster GUI testing
- User-defined action and render templates
- Support for Windows, macOS and Linux development

Programming Features Support

- Animations & timers
- Hardware graphic layers
- 2D and 3D content rendering
- Extensible image loading capabilities
- Extensible scripting interface
- Screen transitions: fades, easing, interactive drags
- Alpha blending and rotation
- Manual animation frame position control
- Screen composition
- Multiple input sources: touchscreen, keyboard, mouse, gesture engine, voice
- Dynamic data assignment
- External application rendering: video, browser, and more
- Regression testing interface
- Lua or JavaScripting support

Designed for Embedded Systems

- Event/action invocation
- Scalable across multiple platforms – no code generator
- Plugin feature functionality
- Custom bitmap glyphs export selection
- SVG files rasterized on export
- Gradients not tied to a canvas
- Mask support for controls
- Support for custom events
- Custom OpenGL Shaders
- FBX and OBJ 3D model support

Software Developer Kit

- Custom input events and actions
- Custom script APIs and hooks
- Custom visualizations and rendering extensions
- Custom rendering engines

Text Support

- UTF-8 text encoding
- Dynamic text content
- TrueType & OpenType font
- Colored emoji bitmap glyph fonts
- Anti-Aliased text rendering