CRANK®
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Accelerating The Next Embedded GUI Experience

To create sophisticated user experiences that consumers crave, embedded GUI teams around the world have adopted the Crank Storyboard framework. From wearables and smart home technology to medical devices and industrial automation, Storyboard streamlines the workflows between designers and embedded systems engineers, accelerating development and reducing time to market.
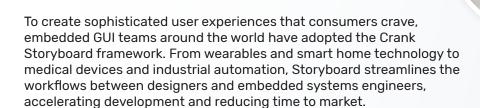
Thousands of developers use Storyboard to reduce the frustrations, delays, and costs associated with traditional product development. By decoupling the frontend GUI from the backend logic, Storyboard makes it easy to start early on the UX development process, embrace natural design iterations, and reduce the complexity of developing rich experiences in an ever-evolving embedded hardware landscape.

By enabling designers and developers to create, animate, iterate, and test together in parallel throughout the development lifecycle, product teams can deliver exceptional UX that reflects design vision and amazes consumers.

Accelerate GUI development

Begin GUI development before hardware selection: The building blocks of Storyboard GUI development are design files created in tools such as Sketch, Photoshop, and Figma — import them fast, then add effects, animations, actions, and integration with the backend application.

Embrace design change

Embrace design iteration as an integral part of GUI development: Storyboard's unique rapid design import and iteration technology transforms the design process into an agile one so that refining products to exceed customer expectations can be done at any stage in the development cycle.
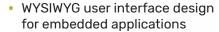
GUI flexibility

Create embedded GUIs optimized for hardware performance and scalable product lines: Storyboard offers a platform-agnostic development framework that de-risks your project and supports technology change and growth at any point in the development cycle.

Crank Storyboard

Storyboard is comprised of a graphical GUI design and development environment and a runtime engine that's optimized for your target hardware.

- WYSIWYG user interface design for embedded applications
- Import and re-import Photoshop, Sketch, and Figma files directly into the Storyboard 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
- Interact with GUI application in real-time without deploying to hardware
- Receive immediate feedback on GUI designs that may be incompatible with hardware capabilities
- Generation of cross-platform deployment bundle for use with Storyboard Engine

- Visual metrics on memory and storage used by resources
- Internationalization glyph and font compatibility
- Lua scripting engine with debugger
- GUI design report generation
- Direct-to-target (SCP) transfer for faster GUI testing
- User-defined action and render templates
- Supports Windows, macOS and Linux

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 from
- Screen composition
- Multiple input sources: touchscreen, keyboard, mouse
- Gesture engine
- Dynamic data assignment
- External application rendering: video, browser, and more
- Regression testing interface

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
- Coloured emoji bitmap glyph fonts
- Anti-Aliased text rendering

Graphics rendering

OpenGL ES 1.x / 2.x	PXP
Framebuffer	DAVE2D
QNX Screen	DRM
Win32 GDI	QNX Screen
OpenVG 1.x	VXWorks
STM Chrom-ART (DMA2D)	Win32 GDI
	FBdev
Renesas RGA	Vybrid
NXP Graphics2D (G2D)	X11
	VGLite

Contact Crank

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