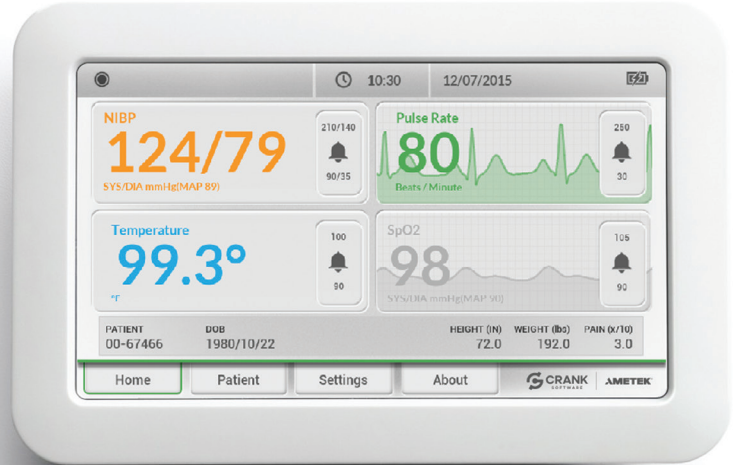


Accelerating the next embedded UI experience

Crank Storyboard

Storyboard™ consists of **Storyboard Designer**, a graphical development environment; and **Storyboard Engine**, an optimized runtime for target hardware. Using one solution, user interface (UI) designers and embedded system engineers can work in parallel to quickly prototype and deploy rich animated UIs for embedded devices. Storyboard bridges the gap between the UI designer who controls the look and feel of the project, and the system engineer who is responsible for implementing core system functionality.



What makes Storyboard different?

Design-centric

Designers can import their 2D and 3D artwork from **Photoshop**, **Sketch**, and **FBX** and create, tweak, and test their UIs from prototype to hardware all from one tool

Update design and rebrand with ease

The graphical compare tool and Photoshop reimport allows teams to easily manage updates and design iteration during development

Animation timeline

Using the animation timeline, designers can create, edit, and review animations without code

Scalable across platforms

Storyboard provides a consistent, hardware-independent UI development environment across all embedded platforms from **MCU** to the most powerful **MPUs**

Purpose-built

Built for embedded application development, Storyboard separates the user interface from the underlying system architecture

Validate and refine

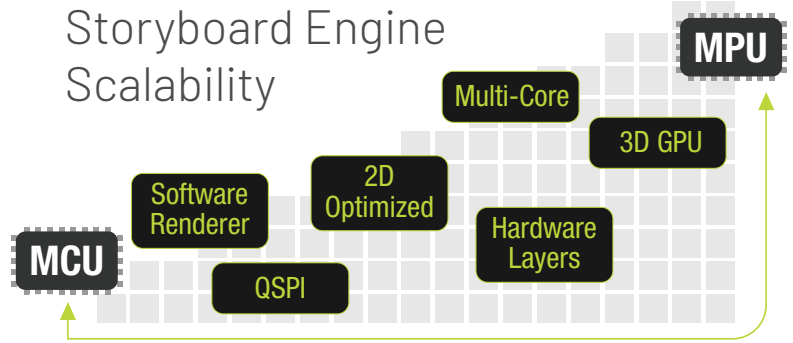
Storyboard Connector empowers designers with an easy way to simulate data from the underlying system, allowing them to quickly validate and refine the user experience



Crank Storyboard

reduces the frustrations, delays, and costs associated with embedded user interface development by treating designers and developers as equals, working side-by-side to deliver modern, rich, and engaging experiences on any class of embedded system.

Storyboard Engine Scalability



Storyboard Designer

- WYSIWYG user interface design for embedded applications
- Import and re-import Photoshop files directly into Storyboard Designer
- Design using standard formats for fonts and images
- UI templates for standard user interface elements
- One-click application simulation
- Create, edit, and preview animations directly in Storyboard Designer
- Receive immediate feedback on UI designs that may be incompatible with hardware capability analysis
- Integration with Eclipse-based embedded development platforms
- Generation of cross-platform deployment bundle for use with Storyboard Engine
- Internationalization
- Collaboration with graphical model compare
- Lua scripting engine with debugger
- UI design report generation
- User-defined action and render templates
- Supports Windows, OS X, Linux

Storyboard Engine

Programming features support

- Animations & Timers
- Hardware graphic layers
- Add 2D and 3D Rendering
- Extensible scripting interface
- Screen transitions: fades, easing
- Alpha blending and rotation
- 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

- Event/Action invocation
- Scalable across multiple platforms – no code generator
- Plugin feature functionality 3D Support
- OpenGL ES 2.0
- 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
- Anti-Aliased text rendering

Graphics Rendering

- OpenGL ES 1.x / 2.x
- Framebuffer
- QNX Screen
- Win32 GDI
- OpenVG 1.x
- STM Chrom-ART
- Renesas RGA
- NXP Graphics2D (G2D)



Contact Crank Software

For more information, please email us info@cranksoftware.com, call us at +1.613.595.1999, or visit us online at www.cranksoftware.com