The New Chapter for GUI Starts Here

Acrodea's UI solutions range powerfully supports the creative process for new GUI, regardless of purpose or application, and can bring forth the invention of UI content creation, intuitive operability, and thematically unified, original UI.

VIVID UI® SOLUTIONS

VIVID UI®

VIVID UI® Suite

VIVID UI® Neo

VIVID UI® Builder

VIVID UI® Effect Framework

VIVID UI® Plus

VIVID Movie

ACRODEA

VIVID UI Solutions

The De Facto Standard for Handset UI Steps Toward the Next Generation

Handset users can freely choose appearances of operating menus with the transfigurable *Kisekae* Content service. Acrodea's VIVID UI gained adoption based on this service, and represents the de facto UI standard for mobile handsets in Japan.

VIVID UI® — Origination Point of Acrodea's UI Solutions Provides "Ease of Use and Enjoyment for Everybody"

By separating the design element into content pieces driven by an engine, VIVID UI can open up UI architectural work, traditionally handled solely by engineers, to designers. Consequently, the solution can reduce UI development time and cost, and allow the creation of more sophisticated UI designs. The support for video and 3D graphics enables richer, more appealing user interfaces. VIVID UI is available for other portable devices, including digital cameras and portable navigation devices. As the foundation for *Kisekae* Service, VIVID UI represents the de facto standard for mobile handsets in Japan with a long record of adoption led by mobile phones.

Architecture enables expression of UI display elements and behavior fully built as content

Engine enables sophisticated UI

- Embedded in a device to interpret and execute the UI content
- Supports 2D, 3D, video, Flash, etc., which can be combined for a rich expression. Expandability is provided for the support of new media.
- Supports software rendering and hardware rendering, based on Open GL ES or OpenVG.
- Supports various input devices, including keypad, touch panel, etc.

Integrated development environment enables UI content creation by designers

- GUI tool for intuitive UI creation by designers
- Generated UI content can be verified by an emulator operating in the same way as the handset. Handset profiles provide emulation of the slight differences between handsets
- UI creation is managed by project. The build function creates the package of UI files with a single menu click.

Workshop

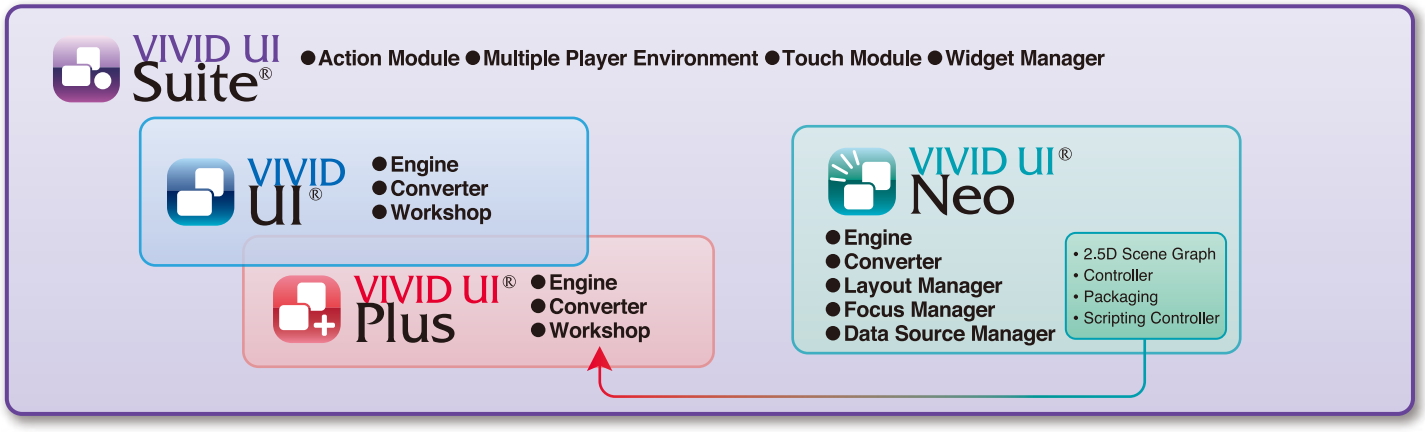
VIVID UI® Plus — Joining VIVID UI Neo Functions to VIVID UI

VIVID UI Plus adds characteristic next-generation VIVID UI Neo engine functions to VIVID UI: conventional legacy content remains compatible, while the latest GUI expressions of VIVID UI Neo can be incorporated.

Functions added with VIVID UI Plus 2.5D Scene Graph, Controller, Packaging, and Scripting Controller.

VIVID UI Suite® — Delivering Sophisticated UI Experiences

The increasing penetration of smart phones in recent years has called for UI with a unified feel that employs new input devices, such as the touch panel. VIVID UI Suite employs the VIVID UI Core as its middleware engine, and incorporates the Touch Module to address touchscreen operations, the Action Module for pleasant, unified operating feel, and the Widget Manager to control widgets. In short, VIVID UI Suite provides an interface framework for a unified look and feel across operating menus, applications, and widgets on a handset device. The next-generation engine is compatible with VIVID UI Neo and supports the latest devices.



VIVID UI® Neo

VIVID UI's Next Generation Responds to Continually Evolving Requirements of Our Time

Supporting the latest GPUs and a 2.5D scene graph, VIVID UI Neo defines the next generation of VIVID UI by retaining all advantages of the conventional solution and facilitating the creation of richer, more complicated expressions.

2.5D Scene Graph

- Proprietary support for complicated animation achieved by 3D or Flash.
- Emphasizes optimized rendering efficiencies, such as dirty rectangles.
- Hierarchical coordinate conversion definitions promote componentization of display elements.

Controller

- Controls various parameters, such as position, color, etc., of display elements in the scene graph.
- Free combinations of diverse controllers facilitate complicated animation.

Packaging

- Ability for componentization of display elements and animations

Scripting Controller

- Scene graphs and packages can be generated dynamically from a script and controlled in detail.

Layout Manager

- Supports automatic layout, depending on changes of the screen size, for vertical and horizontal dimensions.

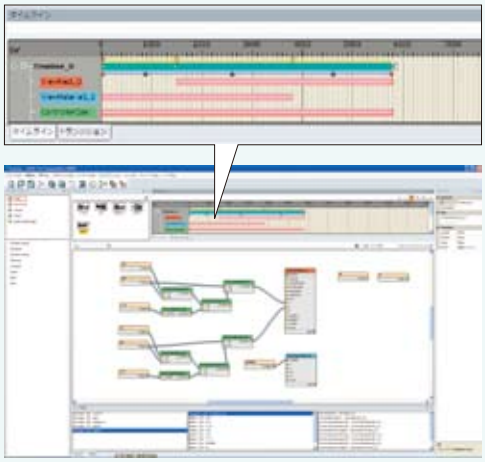
Focus Manager

- Extensible focus model

Data Source Manager

- Facilitates links between the UI and dynamic data, such as list displays for contents of data folders.

Development Tool



VIVID UI Neo's Graph Use Case

The icon bounces on the water's surface and the background changes with a gradation of seven colors.

Cover Flow

RSS Viewer

Unified Look and Feel

As a set of components, the Action Module provides preset visual actions, and the Touch Module recognizes touch screen input gestures. By matching the UI design components to the desired action presets, a UI with consistent look and feel can be achieved.

Sophisticated Graphics

Support for OpenGL® ES 1.1 and OpenVG™ enables rendering of elaborate graphics that leverage graphics hardware.

Robust Architecture Supports Entire Hierarchy of Handset Menu Screens

In addition to the Action Module and Touch Module, support for configuring multiple VIVID UI players allows windows to open on top of other windows. Designers can build deep menu levels, widgets, and pop-up menu windows within the framework of VIVID UI Suite. All visual components that meet the user's eyes can be made consistent with a unified look and feel.

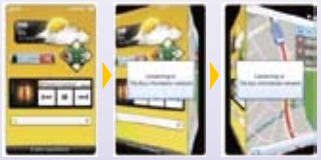
Ideal for Differentiating Smartphone UI

Smartphones are increasingly implemented with open-source OS. The relative ease of terminal development is an advantage; however, differentiation among compe ting manufacturers presents a challenge. The framework of VIVID UI Suite allows a unified UI architecture for open-source OS, and facilitates proprietary UI creation for the handset manufacturer.

Widget Use Case

Dragging widget icons to idle screen

UI Transition Case Display of UI in cube configuration



A feature options solution that enriches VIVID UI expression capability.

VIVID UI® Builder

Application UI Design and Creation, as Easy as Drag & Drop

Outfitted with ready-made UI components that can be dragged and dropped onto an art board, VIVID UI Builder is a PC tool for creating and designing application UI. Simply calling the UI files from the target application enables operations. Even casual programmers who build apps as a pastime can easily create UIs by preparing their desired textures and colors.

- UI components can be selected, resized, and placed freely with the mouse.
- Cover flow and list box features enable an intuitive, pleasant operating feel. UI components, layouts, and visual effects are ready-made for immediate use.
- UI components, layouts, and visual effects can be imported and added to the available inventory.
- Complicated integration between the UI and application is eliminated.

VIVID UI® Effect Framework

Even Greater Facility for High-Speed Rendering and Screen Transition Effects

Developed as a feature set option for VIVID UI, VIVID UI Effect Framework provides the means for visual presentation befitting sophisticated handsets. Screen transition effects between menu screens, from menu screen to application launch, and for image viewers require creative effort. For screens displayed within VIVID UI, designation of the transition effect is sufficient for an easy and effective screen transition.

VIVID Movie

High-Speed Playback, Lightweight Video Codec

Designed for power-conserving CPUs, VIVID Movie is a lightweight video codec for high-speed playback. Unlike unwieldy conventional playback that is highly processor-intensive, VIVID Movie provides video playback on mobile handsets at DVD quality, and outstanding compatibility with VIVID UI.

Commercial Adoption Examples of VIVID UI Solutions

NTT Docomo "*Kisekae* Tool": VIVID UI, VIVID Movie, VIVID UI Effect Framework
KDDI "*Nakachen*": VIVID UI, VIVID Movie
Softbank Mobile "*Kisekae* Arrange": VIVID UI, VIVID Movie

Global mobile handset manufacturer: VIVID UI, VIVID UI Suite, VIVID Movie
Digital camera, portable navigation system: VIVID UI

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