



Prism™ Graphics Toolkit

Create Stunning User Interfaces in Record Time

Prism™ is a complete family of leading edge graphical interface development tools and libraries created by Blue Water Embedded, Inc. Prism is a complete framework and toolset for designing and deploying advanced graphical interfaces on embedded systems, providing everything a developer needs to make your UI visions a reality. The Prism family includes the following components.

PRISM RUNTIME FRAMEWORK™

Prism Runtime Framework is our runtime framework incorporating a complete high-performance graphical drawing library and GUI widget set. This framework provides all of the necessary nuts and bolts to enable you to display professional quality graphics on nearly any target system capable of graphical output.

Prism Runtime Framework allows you to incorporate any number of fonts, images, strings and other assets seamlessly on your embedded target, with or without a file system. The widget set includes a wide variety of buttons, panels, scroll bars, text display and rich text editing controls, sliders, charts, graphs, animations, icons, and other graphical widget types. Developers can easily add their own custom widgets to the framework. Any combination of input devices including keypad, keyboard, touch screen, mouse, and multi-touch capable input devices can be utilized within this framework.



Variations of Prism Runtime Framework are available for all color depths, screen resolutions, and hardware capabilities. Color depths ranging from monochrome to full 32-bit-per-pixel drawing with alpha channel are fully supported. Prism Runtime Framework is provided ready to run on your embedded target without requiring any underlying support. Prism Runtime Framework is also provided in convenient desktop configurations, meaning that you can build and execute your complete UI design in a Microsoft Windows or Linux/X11 environment well before the availability of your target hardware.

A simple data schema is a built-in component of the Framework. Graphical widgets can be data producers, data consumers, or both. Your system software can also easily produce or consume data to interact with the user interface. This mechanism greatly simplifies the task of coding the functionality of your user interface, and reduces or even eliminates the man-hours required to "hook-up" your graphical widgets when using competitive toolkits.

The framework can be configured such that even when running on grayscale or low color depth displays, the software internally runs in hi color depth, thus enabling the advanced capabilities set. The final graphical output is then down sampled to the compatible output color format. This allows sophisticated effects like alpha-blending and anti-aliasing to be accomplished even on color-depth limited target devices.

Prism Runtime Framework includes support for many additional capabilities including:

- multiple canvases with transformation and overlay blending
- multiple hardware frame buffers with independent color depths and x, y resolutions
- Anti-aliased drawing of all graphics primitives and fonts
- Per-pixel alpha-blending
- Run-time resource installation and skinning
- Screen animations and transition effects
- Linear, logarithmic, and trigonometric gradient fills
- Complete multi-language support, including string table generation, XLIFF string file import and export, and Unicode, UTF8, U16 string encoding support



PRISM INSIGHT™

Prism Insight is our desktop UI design and resource editing tool. Prism Insight allows you to completely design your user interface using our drag-and-drop WYSIWYG environment. A complete button designer allows you to define buttons and menus with the exact appearance you require. The Animation Designer allows you to specify screen flows and select from a wide range of built-in or even custom screen transition effects and animations.

Prism Insight generates output that is compatible with Prism Runtime Framework. You can choose any combination of supported data output formats, depending on the requirements and capabilities of your target system. Prism Insight can produce ANSI C/C++ source code, ready to compile and run on a resource constrained target. This option usually provides the best runtime performance. Prism Insight can also produce XML screen description files, which are parsed and decoded by the Prism Runtime Framework during system startup. This option requires a filesystem on the target, but also enables more sophisticated modifications and updates to your UI design even after a product has been released in the field.

Prism Insight also allows you to produce modular system resource files, in source or binary formats, containing any combination of colors, graphics, fonts, strings, screen flows, and database schema. This capability allows you to “reskin” your user interface on the fly, add new screens or new display fields, or support any number of languages, all without doing any manual software coding.

Blue Water Embedded – Company Overview

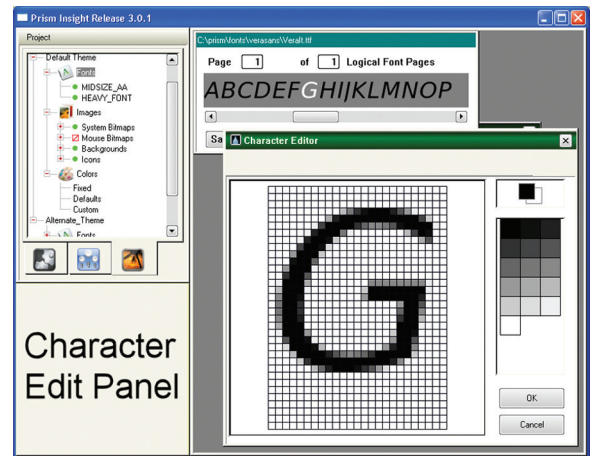
Blue Water Embedded, Inc. is the leading provider of graphics software for high performance user interfaces in embedded devices. The engineers at Blue Water Embedded have decades of combined experience delivering quality graphical software solutions for use by embedded developers. Our commitment to quality and customer service makes Blue Water Embedded the software partner of choice for companies creating a wide assortment of products used in medical, consumer, security, telematics, and industrial applications.

Quality Software, Professional Support

The Prism software family is not SOUP (Software of Uncertain Pedigree). Prism is delivered with complete documentation including API Reference Manual, Framework Developer's Guide and Insight User's Manual. In addition, the Prism Runtime Framework is always delivered with complete source code. If you are building a medical device or other safety critical system, the Prism software family is the only logical choice.

Further, the engineers at Blue Water Embedded are committed to timely and knowledgeable technical support. You will always get answers directly from the engineers and system architects who created and maintain the Prism software.

Contact us today at (810) 987-3002, or email sales@bwembedded.com.



Industry Leading Compiler, RTOS and Silicon Support.

Our engineers work continuously to insure the Prism framework is validated with a wide variety of leading RTOS environments, compiler/linker tools, and microprocessors. Our certified integration partners work closely with Blue Water Embedded to insure that the Prism Runtime Framework is ready to run with your selected operating system.

We currently test our solutions with compilers from Green Hills, IAR, Microsoft, Keil, GNU, ARM ADS, ARM RVDS, Freescale CodeWarrior, Analog Devices Visual DSP++, TI Code Composer, Renesas HEW, and ST Microelectronics.

Our unparalleled operating system support includes Express Logic ThreadX, Micro Digital SMX, Green Hills INTEGRITY and *veLOsity*, Micrium uCOS/II,III, Freescale MQX, Linux, Quadros RTXC, eCosCentric's eCos & eCosPro, FreeRTOS, and CMX Systems CMX-RTX. Our software is certified to work correctly off the shelf with any of these operating systems, leaving you free to concentrate on your product development. You can also run the Prism Runtime Framework completely standalone, with no underlying RTOS.

Prism supports the following processors: ARM 7/9/11, Coldfire, Cortex M3/A8, OMAP, Renesas, Strong ARM, XScale, and X86.



BLUE WATER EMBEDDED, INC.
3847 PINE GROVE AVE.
SUITE A
FORT GRATIOT, MICHIGAN, 48059
USA

PHONE: 810-987-3002
FAX: 810-987-3151
WWW.BWEMBEDDED.COM
SALES@BWEMBEDDED.COM

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