

# VisualLynux

VisualStudio IDE extended for embedded Linux and RTOS development



An extension of Microsoft Visual Studio™ IDE, VisualLynux™ enables LynuxWorks customers to leverage the popular Windows-based IDE for LynxOS® and BlueCat® Linux development. You gain an immediate time-to-market advantage because your developers can:

- Avoid the time, difficulties and risk of having to learn a new IDE for embedded targets
- Achieve maximum efficiency through the software's powerful visual development paradigm

VisualLynux installs on top of existing Visual Studio installations without altering the IDE's appearance or familiar operations. Developers skilled in C++/Visual Studio programming develop as they always do—except they now have all the commands and standard GNU tools they need to streamline the design and creation of applications targeted to run on LynxOS and BlueCat Linux.

## Visual Studio-compatible environment

VisualLynux provides a work environment that is completely compatible with standard Visual Studio in order to provide as familiar and efficient environment as possible. For example:

- All cross-compilation and linking accomplished with the same familiar buttons as the Windows-target version
- Color-coded editor, class browsers and other useful Visual Studio facilities are all preserved for targeting LynxOS and BlueCat Linux
- All additional LynxOS- and BlueCat Linux-specific features are available as new buttons on the Visual Studio menu bar

Industry-standard interfaces, meanwhile, ensure compatibility with current and future releases of Visual Studio and LynuxWorks operating systems.

## Highly automated

VisualLynux also provides a high degree of automation when leveraging Visual Studio for embedded development. For example:

- Wizard Dialog Boxes capture LynxOS- and BlueCat Linux-specific configuration information needed to couple Visual Studio tools to the target environment
- A simple set of selections establishes the project and software library components to use in an application
- Application Wizards create application skeleton code utilizing many POSIX API features to be used as templates for users to modify, and create their specific applications

## True cross-development IDE

Remote debugging and target download/viewing tools are also included to allow Visual Studio to function as a true cross-development IDE. This includes integrating the GNU tool chain in a completely transparent fashion—including the widely used GNU compiler and LynuxWorks extended GDB debugger (TotalDB), along with an advanced GUI to support a rapid and accurate edit-compile-debug cycle.

The use of an industry-standard tool chain normalizes the process of creating, porting and maintaining software across different platforms. Because the standard tool chain is used, future updates are able to be kept in synch with new features. All standard GNU tool chain option switches are accessible, empowering users to determine how best to compile and link their applications.

## VisualLynux Advantages

- Windows host development coverage —familiar Visual Studio IDE enhanced for LynuxWorks operating systems
- Faster time-to-market —leverage easy-to-use visual development environment and existing Windows programming talent
- Normalized development across platforms —industry standard IDE and GNU tool chain

## Open development commitment

In addition to VisualLynux, LynuxWorks also offers its CodeWarrior™ IDE Edition—the only implementation of the award-winning CodeWarrior™ 6.0 IDE to encompass both embedded Linux and hard real-time operating system (RTOS) development in a single environment. Both VisualLynux and CodeWarrior IDE Edition are part of LynuxWorks' expanded open-development initiative. And both can be used in conjunction with each other and with other LynuxWorks open development tools so that Windows-, Linux- and Solaris-based IDEs can be mixed effectively on a single project. LynuxWorks also provides specialized yet standards-based tools, such as the unique SpyKer dynamically instrumented system trace analyzer, to further streamline your development and deployment efforts. It is all part of the LynuxWorks commitment to open development and time-to-market advantage.

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