Expertise

Real Time and Embedded Software Applications

VxWorks, Linux, Windows, in-house, and legacy RTOS.

User Interface and Management: Windows GUI, CLI, SNMP, Web Based

Middleware

Boot Code, BSP, Device drivers, Diagnostics

Digital Hardware Design

Markets

Telecom
Networking
Aerospace
Computing
Military
National Labs

Project Options

Fixed Price or T&M

On or Off Site

Single Engineer or Complete Development Team



Lextel's mission is to provide solutions to your design and development challenges in a timely, predictable, and cost-effective manner.

Lextel has become a trusted and valued extension of the engineering teams of many firms developing products in the Real Time and Embedded Systems space.

Our expertise includes all facets of real time systems engineering, from the ground up. We have expertise in digital hardware design including fpgas, microprocessors, board design, and pilot production runs. Low-level software expertise includes boot code, diagnostics, and device drivers. RTOS related experience includes board support packages, device drivers, porting and abstraction layers, and RTOS modification and extension. Middleware solutions have included event logging, high availability and redundancy, cli toolkits, and Interprocessor communication. We have developed user interface and management solutions using Windows VC++ (GUI), CLI, SNMP and Web based methods.

Lextel follows a 5-step development process on all projects. Our 5-step process ensures there will be *no surprises*. Projects are defined and specified at an appropriate level of detail so that all parties agree on what is to be accomplished. Ongoing schedule updates keep the customer apprised of the project's status. Lextel engineers will also conform to the customer's in-house engineering process.

Intermediate milestones and deliverables, and focused interaction provide critical feedback that keeps the project on track without overburdening the customer.

We understand that we can only succeed by helping you to succeed.



Lextel 5 Step Development Process

Step 1: Information Gathering

During Step 1, we work with customers to gain an understanding of the customer needs. Typically this phase will include gathering and reviewing customer specifications, user manuals, and the like, as well as sitting down with the customer engineers and managers for project discussions. The objective of this step is for the customer to transmit all available information and goals for the project to Lextel.

Step 2: Specification and Project Planning

During Step 2, Lextel will create a specification of the item to be developed. Typically, the result is a 'product functional specification'. The specification describes the functionality of the hardware or software to be developed, the external interfaces, performance characteristics, implementation methods, risk factors, and any outstanding issues to be resolved. Step 2 will require one or more review and update iterations with the customer until the customer 'signs off' on the final version of the specification.

When the specification is finalized, Lextel will develop a project plan. The plan includes a breakdown of the project into sub-projects, with estimates of the engineering man hours required for each sub-project. Also included will be options for overlap and parallel development using multiple developers, prioritization of the sub-projects, and determination of interim deliverables and milestones. Then in consultation with the customer, a development strategy will be chosen.

Step 3: Implementation

During Step 3, Lextel will implement the project according to the project specification and plan agreed upon in Step 2. Interim deliverables will be provided to the customer at appropriate points in the process. The degree of interaction between Lextel and the customer will depend on the project but we strive to minimize the time burden on customer engineers and managers while making sure the delivered product meets expectations.

In order to ensure timely, cost-effective execution of the development program, it is critical to have on-going communication between Lextel and the customer. During the implementation phase, the customer may require specification changes, and Lextel engineers may discover unforeseen issues. Informal communication, such as email or telecom, and formal communication, such as weekly status meetings, may be utilized to address these issues.

Step 4: Final Test, Demonstration, and Delivery

During Step 4, Lextel will work with the customer to perform final test, demonstrate the product, and provide a final delivery package. Ideally, the final test and demonstration is little more than a formality since the customer has worked with interim deliverables during the Implementation phase. The final 'handoff' will enable the customer to support the product going forward.

The final deliverable usually takes the form of an Installshield installer package including all project documentation, source code, build scripts, test code, and schematics as appropriate. When required, software release install packages will also be provided for use in distributing a software package.

Step 5: Maintenance and Support

During Step 5, Lextel will be available for maintenance activities. This may involve resolving issues and implementing improvement requests discovered while the delivered product is in use by the customer.

Lextel can perform required changes or can work in an advisory capacity to customer engineers.

