



Success Story  
**Intel® Software Partner Program**  
 Gaming Market Segment  
 Intel® Graphics

# Gaming Company Trims Development Time by Optimizing for Intel® Graphics

**Quicksilver Software turned to the Intel® Software Partner Program for help in optimizing its Q2007 Game Engine\* for Intel® Graphics. Quicksilver was able to reduce its development time and quality assurance effort to reach a broad range of target platforms.**

Quicksilver Software is a longtime leader in strategy, simulation, action, and RPG games that has branched out into the education and military markets. The company needs to support a broad range of hardware platforms ranging from top-of-the-line computers to older school systems with low-end graphics subsystems. Quicksilver used its Intel® Software Partner Program membership to get help in optimizing its graphics engine for the latest Intel® Graphics. The company was able to deliver sample code very quickly and produce exceptional performance on specialized handheld computers and even on older desktop computer systems.



*"We optimized our engine for Intel® Graphics because it allowed us to address the broadest possible range of target platforms."*

- William Fisher, president,  
 Quicksilver Software

### Challenge:

Provide sophisticated graphics capabilities on a broad range of target hardware platforms containing a diversity of graphics subsystems.

### Solution:

Quicksilver Software of Irvine, California, received help from the Intel® Software Partner Program in optimizing its graphics engine for Intel® Graphics. The company was able to demonstrate its engine capabilities on a customer's new and as-yet untested platform within a day of receiving the hardware, allowing the customer to commit quickly to a large purchase of Quicksilver software and stay on schedule.

### Learn more:

[www.intel.com/partner](http://www.intel.com/partner)

## Must Run Well on a Range of Platforms

Quicksilver Software has been developing cutting-edge strategy, simulation, and role-playing games for over 22 years. In recent years the company, based in Irvine, California, has extended its computer-based gaming acumen to the educational market and to military training products for the U.S. Army and the Singapore Armed Forces. It has also diversified into mobile and handheld games.

Quicksilver products usually address some unique or highly specialized design element, such as external hardware devices, embedded systems, or knowledge of a specific field such as military logistics. To develop such products efficiently, the company has developed a series of in-house compute engines that provide a broad range of cross-platform capabilities and allow rapid development of dependable products. Quicksilver needs to ensure that its engines are capable of supporting lower-end machines, particularly because some of its target markets have large numbers of older computers or utilize handheld devices that have graphics subsystems designed for low power consumption.

For example, its most recent educational product is designed for the K-12 market, which typically purchases inexpensive computers and keeps them for a long time, passing them down to lower grades as they age. It's not uncommon to see six- or seven-year-old computers in active use at elementary schools. Because they often require rapid activity, such as typing, Quicksilver products must run well on these machines.

As another example, Quicksilver is working on a location-based entertainment product that relies on handheld computer systems with touch panels. Even though these are modern machines, they use low-end graphics systems to save power. Quicksilver's graphics engine must support graphics chips that offer far fewer capabilities than the top-end gaming devices.



*"Our relationship with Intel is one that we consider valuable, because it helps us promote that expertise to potential customers and then back it up with solid performance on our projects."*

- William Fisher, president, Quicksilver Software

## Speed Time-to-Market

"Quicksilver is a company with deep technical expertise, especially when sophisticated hardware optimizations are required," says William Fisher, president of Quicksilver Software. "Our relationship with Intel is one that we consider valuable, because it helps us promote that expertise to potential customers and then back it up with solid performance on our projects. In short, we have a very clear understanding of Intel technologies and use that knowledge to create better products."

For example, Quicksilver recently began work on the alpha version of its keyboarding skills product, Type to Learn\* 4. Quicksilver planned from the start to support Intel Graphics because it knew that many school computers rely on Intel Graphics solutions. As a member of the Intel Software Partner Program, Quicksilver contracted early in the technical design phase and was able to obtain specific checklists explaining how to optimize its code. This helped Quicksilver programmers design the graphics engine to operate efficiently on current and past versions of the Intel Graphics product line.

"We were able to get our engine running on all the necessary machines with very little optimization work," Fisher says. "We were given a top 10 dos and don'ts list, which our programmers used as they were building the user interface toolkit. With the help we received, we were able to focus resources on the product instead of the engine."

This design decision became even more important when a major customer for Quicksilver's location-based product sent it a potential handheld device for evaluation. The customer was concerned about whether the unit was powerful enough to support all of the capabilities of Quicksilver's graphics engine, because it relied on DirectX\* 9.0c to render user interface components.

"Our customer was afraid that the Intel® 945 Graphics chipset would not be powerful enough," Fisher says. "We quieted their concerns very quickly by installing our military trainer on the handheld and running through a complete scenario, which required looking at maps, tables, and various complex forms, plus digital video and audio sequences. It ran flawlessly and very quickly. Our early focus on careful technical requirements analysis and optimization paid off by quickly resolving a potentially difficult situation."

## Broadest Possible Market

By optimizing its graphics engines for Intel Graphics, Quicksilver Software is able to address a broad range of target hardware platforms, which broadens its markets and profits. "We optimized our engine for Intel Graphics because it allowed us to address the broadest possible range of target platforms," Fisher says. "As a result, our customers are very happy with our products and our quick turnaround on technical issues. Equally important, they have high confidence in our technical team, because they know that we can be trusted to leverage contacts with suppliers such as Intel to make the most of the hardware platforms that we are required to support."

Quicksilver's educational product is built to run on both the Windows\* and Mac OS\* operating systems. A recent game was developed for both the Nintendo DS\* and Sony PSP\* game consoles. "Now that Apple's machines are based on Intel® processors, it's very easy for us to create such products," Fisher says. "We multiply our market reach without any more development work."

---

## About the Intel® Software Partner Program

The Intel® Software Partner Program provides a framework for collaborative solution development around Intel architecture. From business planning and product development to marketing and sales, the program drives increased business success and market opportunities.

Success Story by:

