

# Streamlining software development

## Interactive entertainment company boosts performance of workstations with Intel® Solid-State Drives

Ubisoft is one of the leading international developers, publishers and distributors of interactive entertainment products, employing over 5,000 development staff globally. The computing resources available to its staff are key to the development process. Ubisoft regularly evaluates new hardware products to determine whether they can bring significant benefits to the company's work processes. It identified the introduction of Intel® Solid-State Drives (Intel® SSDs) as offering the potential to significantly enhance the performance of its existing computer workstations.



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"After deploying Intel® SSDs within the workstations used by our developers, we have seen an instant uplift in the speed at which they can perform their tasks. This has allowed them to spend more time on fine-tuning, enabling us to deliver even better quality products to our customers."

Franz Pinto  
IT Purchasing Coordinator, Ubisoft

### CHALLENGES

- **Better products:** Ubisoft wanted to improve the performance of the workstations its developers use for new interactive entertainment projects to streamline the development process and provide extra time for improvements within existing deadlines
- **Maximizing ROI:** It sought to update the hardware in its existing development workstations to get the most out of its previous investment; it wanted a cost-effective solution that offered the biggest performance benefits

### SOLUTIONS

- **New opportunity:** Ubisoft identified Intel SSDs as a hardware advancement that could offer significant performance improvements when substituted for the existing hard disk drives (HDDs) in its workstations
- **Assessing the competition:** After identifying Intel SSDs as the leading SSD solution, Ubisoft conducted tests to compare the performance of the Intel SSDs against a pair of 10,000 RPM 300GB consumer HDDs in RAID 0
- **Superior performance:** The Intel SSDs offered comparable performance benefits while providing a simpler, more reliable and energy-efficient solution; Ubisoft chose to deploy a total of 700, mainly within its production teams

### IMPACT

- **Quantifiable benefits:** Ubisoft has seen a significant rise in productivity: its software engineers now save an average of 30 minutes per day they would previously have spent waiting for essential processes to load; this can rise to one hour at especially busy periods
- **Improved quality:** The newly-streamlined development process has helped production teams complete projects faster, allowing them to spend more time on quality assurance while still meeting their original deadlines
- **Further opportunities:** Following the success of the initial implementation of Intel SSDs, Ubisoft is considering future deployments to other developers as well as within the computers used by its management and admin staff

### A force in interactive entertainment

Ubisoft is one of the leading international developers, publishers and distributors of interactive entertainment products. It operates 23 development studios in 16 countries and boasts the second-largest development staff base in the world for interactive entertainment products. Given the fast technological progress in the interactive entertainment industry, the IT systems Ubisoft's developers use play a crucial role in ensuring that they can produce the most compelling and up-to-date content. As one of the leaders in its field, Ubisoft regularly replaces its development teams' hardware with newer technology to improve performance and keep up with industry developments.

As part of this process of ongoing improvement, the company recently gave its production teams new workstations with upgraded hardware. They included Intel® Xeon® processors, NVIDIA GTX\* 460 graphics cards with six to 12 GB of RAM, and a pair of 7,200 RPM 500GB HDDs.



## Intel® Solid-State Drives help Ubisoft developers streamline essential work processes

### Constant improvement

To ensure its developers had the best-performing workstations, Ubisoft monitored developments in computing hardware for new solutions that could boost performance. One aspect of the workstations' hardware profile that offered room for improvement was the HDDs. The basic platter technology had not changed for a number of years, compared to advances made with other components. The arrival of solid-state drives (SSDs) offered a potential solution to the performance limitations this presented.

Ubisoft decided to test the new SSD technology to determine whether it offered significant improvements in performance over the existing HDDs. As part of this, it chose to compare the performance of SSDs with that of a more recent HDD model, a 10,000 RPM 300GB consumer HDD with two drives in RAID 0.

### Assessing the potential

After looking into a range of SSD models from different vendors, Ubisoft identified Intel SSDs as the best performing. Using samples provided by Intel, it installed 160GB Intel® X25-M Mainstream SATA SSDs in staff workstations – including engineers, programmers and 3D designers – used to perform a range of roles in the development process. Ubisoft then observed how much time the staff saved when using the new drives to undertake their regular tasks and then repeated the process with the 10,000 RPM HDDs.

The tests showed that both the SSDs and HDDs produced similar performance improvements when handling everyday tasks and were able to cut up to two-and-a-half hours from the daily workload of development staff.

After evaluating the suitability of both the HDD and SSD solutions for its business, Ubisoft decided the Intel SSDs were the best option. The single Intel SSDs offered a more reliable solution than the RAID 0 configuration used for the HDD drives and with less chance of mechanical failure due to the lack of moving parts. The SSDs also consume less energy than two HDDs working simultaneously and were also much easier to install, taking around one hour to set up compared to four hours for the HDDs.

### Real benefits

Following the trial, Ubisoft decided to deploy 700 Intel SSDs in its newest workstations. Most were assigned to developers working on demanding, data-intensive tasks, with a small number allocated to administrative and managerial staff.

The new drives produced instant improvements. As one member of the production team notes, "Now everything runs faster." Engineers developing new products have been able to save an average of 30 minutes per day as a result of the SSDs' faster application performance, a saving that rises to one hour during busy periods.

Besides producing direct time savings, the Intel SSDs have had a positive impact on the

### Spotlight on Ubisoft

Founded in 1986, Ubisoft is the third largest developer, publisher, and distributor of interactive entertainment products in the U.S. and Europe. It employs over 6,200 staff and operates the second biggest pool of development staff in the world, with over 5,000 dedicated to content production. Its developers are based in 23 studios located in 16 countries. Ubisoft is listed on the Premier Marché of the Paris Stock Exchange.

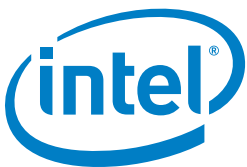
overall working environment for Ubisoft's development teams. Staff now spend less time waiting for essential processes to load, allowing them to stay focused on priority tasks and helping to raise the productivity of the entire team.

### Raising quality

Ubisoft needs to ensure that the development process runs within tight deadlines. With the Intel SSDs, its development staff can complete projects faster, providing more time for final quality checks within existing deadlines. As a result, Ubisoft can deliver higher-quality end products, helping to maintain the company's competitiveness in the interactive entertainment sector.

### Further opportunities

After seeing the productivity benefits of Intel SSDs, Ubisoft is considering deploying the technology across the rest of its development staff, as well as in computers used by administrative and management teams. By helping to deliver performance improvements from existing computer hardware, Intel SSDs offer the potential for further efficiency enhancements across the entire organization.



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