

# **An IBM Power Systems Education Project in Second Life**

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## **Abstract**

The paper describes an innovative academic project using a three-dimensional virtual world, Second Life. The ongoing project is a partnership among IBM Power Systems and three universities in the U.S. The three universities involved in this project are the University of Nebraska-Lincoln, Iowa State University, and Wright State University. More than 150 MBA students have participated in this project. The MBA students in the three universities worked in cross-institutional teams to create designs in Second Life representing concepts related to IBM Power Systems such as IBM i, AIX, Linux, blade center, Websphere, virtualization, capacity on demand, on demand business, high availability, dynamic computing, green computing, smart planet, and disaster recovery. The project has been a huge success thus far.

## **Introduction**

The University of Nebraska-Lincoln, Iowa State University, and Wright State University embarked on an innovative IBM Power Systems academic project using a three-dimensional virtual world, Second Life, to promote and educate business managers and executives about IBM

Power Systems. In this project, Second Life is used as a means to educate and inform business managers and executives about IBM Power Systems through the constructivist learning approach. Through this learning approach, the Second Life environment is used to facilitate creative thought processes and to promote a deeper understanding of IBM Power Systems concepts.

### **IBM Power Systems**

IBM has produced powerful computers since the early days of computing. One milestone for IBM was the release of the AS/400 computer in 1988. This computer became very popular and many companies still use the AS/400s today. Improvements to the AS/400 led to several models of IBM computers, including System i and System p. By combining the best features of the System i and System p and adding native support for Linux, IBM created its latest line, the Power Systems, which was announced in April 2008.

The System p has its origins in IBM's Future Systems Project, a research initiative in the 1970s that aimed to produce breakthroughs in computer technology. One of the outcomes of this project was the 801 processor. This processor was used to build many models of IBM computers including the IBM RT (also known as the IBM 6150), which was released in 1986. In 1990, an improved version of the RT, the RS/6000, was released. After further improvements, the eServer pSeries was released in 2000. Finally, its successor was the System p, released in 2005.

The System i came out of a project intended to develop a replacement for popular IBM computers such as the System/360 and System/370 mainframe families. The System/34 was developed, improved, and re-released as the System/36. The System/38 was improved to become IBM's very successful AS/400 model, released in 1988. In addition to directly replacing the System/38, the AS/400 was designed to be backward compatible with System/36 programs. An improved version of the AS/400, called the eServer iSeries, was released in 2000. Finally, the System i was released in 2006 as a replacement for the iSeries.

In 2008, IBM released their latest model, the Power System family of computers, which combines the best of System p and System i, and includes extensive support for running the Linux operating system.

### **Second Life Project Description**

More than 150 MBA students have participated in this project. The MBA students from three U.S. universities worked in cross-institutional teams to create designs in Second Life representing concepts related to IBM Power Systems. In this project, they were introduced to 34 IBM products/concepts such as IBM i, AIX, Linux, blade center, Websphere, virtualization, capacity on demand, on demand business, high availability, dynamic computing, green computing, smart planet, and disaster recovery.

### **Second Life Project Procedure**

In the first phase of the project, the MBA students were introduced to IBM Power Systems and related concepts. In the second phase, the MBA students conducted their own research on these products/concepts. In the third and final phase, the MBA students worked in pairs to create designs in Second Life to represent and showcase one or two of the IBM Power Systems products/concepts. At the end of the five-week project, each team prepared a note card in Second Life describing their design. Each student also submitted a reflection paper that explained the rationale underlying his/her team's design and his/her experience. So far, two batches of MBA students have taken part in the project. We welcome readers to view snapshots of these designs at <http://ait.unl.edu/siau/sl.html>.

### **Results and Contributions**

The Second Life project is innovative and novel in a number of ways. First, it uses the constructivist learning approach which has been shown to be highly effective in education literature. Second, the project is highly involving and fun. These characteristics make it an effective tool to educate business managers and executives, such as the MBA students, about IBM Power Systems. Also, the five-week hands-on design project helps to ingrain IBM Power Systems concepts in the students' minds.

## **Future Plan**

The project is ongoing and another batch of MBA students will start the project in June 2009. Following that, the next batch of MBA students will begin the project in August 2009. We are continuously fine-tuning and enhancing the project.

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## **Further Readings**

IBM Power Systems

<http://www-03.ibm.com/systems/power/>

[http://en.wikipedia.org/wiki/IBM\\_Power\\_Systems](http://en.wikipedia.org/wiki/IBM_Power_Systems)

IBM System i

<http://www-03.ibm.com/systems/i/>

[http://en.wikipedia.org/wiki/IBM\\_System\\_i](http://en.wikipedia.org/wiki/IBM_System_i)

IBM System p

<http://www-03.ibm.com/systems/p/>

[http://en.wikipedia.org/wiki/IBM\\_System\\_p](http://en.wikipedia.org/wiki/IBM_System_p)

IBM AIX and Linux

AIX: <http://www-03.ibm.com/systems/power/software/aix/index.html>

Linux: <http://www-03.ibm.com/linux/>

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