What are ERP Simulation Games?

ERP Simulation games are an innovative “learning-by-doing” approach to teaching ERP concepts. During these games, students have to run a business with a real-life ERP system (SAP®). The simulation is a make to stock manufacturing company where participants must operate the full business cycle (plan, procure, produce and sell) to experience the value of up and downstream information flows through this real world system. In so doing they discover the importance of process integration across functional silos by understanding firsthand the impact of not making a decision in time or how a poor decision can impact the follow on of a business cycle. By experiencing the simulation, participants truly gain understanding of what it really takes to operate a real company with an integrated system as opposed to a simulated environment that only focuses on strategy. Using standard and customized reports of the ERP, students have to analyze these transactions and make business decisions to ensure the profitability of their operations. The pedagogical objectives of this game are fivefold:

- to develop a hands-on understanding of the concepts underlying enterprise systems,
- to experience the benefits of enterprise integration firsthand,
- to develop technical skills at using an ERP software,
- to learn how to work in a team, and
- to learn how to formulate and execute strategy in a real-time business environment.

Watch this video for more information about the 2009-2010 ERP Simulation Games: [http://www.youtube.com/watch?v=qzqiRsuY4gg](http://www.youtube.com/watch?v=qzqiRsuY4gg)

What is ERPsim?

ERPsim is a unique business simulation technology developed at HEC Montréal that enables the simulation of near-real-life business contexts of large corporate information systems. There are other simulation games which allow you to take a strategic view of an enterprise, but ERPsim is closely coupled with ERP technologies so participants have to use a real ERP system like they would in a real context.

So what exactly does ERPsim do if it is entangled with an ERP system such as SAP? ERPsim serves three functions. First, it provides the simulation of a market for buyers so that the participants playing the game have a reasonable market that responds just like one in the real world would.

Secondly, ERPsim automates some of the business functions that are more administrative to make the game a little easier to play so that participants focus on the decision making processes in the real world system while experiencing the full value of reports and decision support tools that exist in the system. Participants are put in a situation where they have to run their business using a real life ERP system similar to those used by the world’s largest companies. The essential feature of the simulation is that the only interface between the simulator and the participants is a real ERP system. All decisions made by the participants must be introduced into the system; all information about the evolution of the game must be retrieved from standard or customized reports of the ERP system.
reports from the system. For the participant, this is like using a flight simulator, but in a real plane cockpit. This creates a unique learning environment where participants can learn hands-on about the integrated business system.

The third and final aspect that ERPsim provides is the simulation of the passing of time. ERPsim compresses time into a short space but still creates the appearance of time evolving so that the impact of the decisions taken overtime can be evaluated. In this virtual time, participants of the game are able to adjust their decision making processes and take better business decisions over time as their learn to play the game and see the results of the decisions they have taken.

ERPsim is built on a standard technology platform: Java. It uses a set of connectors and integrators to connect with real world ERP systems, for example the BAPI architecture of SAP. In addition to the Java technology, custom reports have been developed inside the ERP application as well as a specific configuration environment to provide the actual game context in SAP.

The simulation is a make to stock manufacturing company where participants must operate the full business cycle (plan, procure, produce and sell) to experience the value of up and downstream information flows through this real world system, process integration across functional silo to understand the impact of not making a decision in time or how a poor decision can impact the follow on of a business cycle. By experiencing the simulation, participants really get to understand what it really takes to operate a real company in an integrated system as opposed to a simulated environment that only focuses on strategy.

ERPsim is a proprietary technology developed by Prof. Pierre-Majorique Léger, Ph.D., Prof. Jacques Robert, Ph.D., Prof. Gilbert Babin, Ph.D, Prof Robert Pellerin, Ph.D. and Prof Bret Wagner, Ph.D. Free of charge licences for the use of ERPsim in the academic world has been granted to the UCCs and the SAP University Alliance. In the non-academic world, Baton Simulations has the exclusive rights to use the ERPsim technology and all related intellectual property in all countries for commercial use.

How can I start using ERPsim?

It is essential that you attend a training workshop. Use of ERPsim software requires the entry of a Certification ID (simCID), and one will only be issued to you once we are satisfied that you have been prepared to use the game effectively. In the past, we have found that first time users generally stumble over the same questions and many misunderstandings about SAP and how the simulation interacts with SAP. Providing training workshops is the most effective way to avoid frustration and contain our support costs for a service that ERPsim Lab provide free. More information about how to get started can be found here: [http://erpsim.hec.ca/?q=start](http://erpsim.hec.ca/?q=start)

The Manufacturing Game

The manufacturing game consists of producing and selling Muesli breakfast cereals to the German market. This game is designed for teams of four to six students and scale to run up to 26 simultaneous teams. The
The distribution game is played over a succession of rounds each consisting of 30 simulated days. This game can be played in two scenarios.

The first scenario is a simple introductory game designed to quickly introduce the students to the core concepts and business processes of SAP, over one or two classes. The second scenario, or extended version of the game, has wider scope to further explore SAP functionality and business process. The manufacturing game is suited for integration into the complete curriculum of a longer course. We recommend both scenarios be played, one after the other.

For the manufacturing game, purchase of a Participant’s Guide in electronic format is required, and is distributed through Pearson Education. Please note that the authors of the book have renounced their copyrights in favour of the ERPsim Lab. The mission of this lab is to ensure the continued development and support of this simulation software. The proceeds from the sale of the book are used to fund the faculty support web site, and the team behind it.

For more information visit http://erpsim.hec.ca/book. Purchase opens access to both the simulation as well as additional multimedia content in the ERPsim learning portal (http://erpsim.hec.ca/learning) to help students master SAP functions and processes, as well as game concepts. Material for certified faculty is also available via the ERPsim learning portal.

The Distribution Game

In this game, participants will buy and sell bottled water to small corner stores in the German market. The distribution game consists of 60 simulated days split into three rounds of 20 days each. This game is designed to be played in two to three hours and is perfectly suited for single lecture use in courses such as Introduction to MIS. The distribution game is designed to be played by teams of two to four students each, and supports up to 26 simultaneous teams in play, for a potential total of over a hundred students. This game is freely available to all members of the SAP university alliance and the associated material for this game (slides and student job aid) is made available through the SAP University Alliance Portal.