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# POLISH-AMERICAN ENGINEERS ASSOCIATION

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All members and friends of Polish-American Engineers Association are cordially invited to attend our meeting.

**DATE:** Friday, March 15th, 2013

**TIME:** 7:30 p.m.

**PLACE:** Copernicus Center  
Kings Hall  
5216 W. Lawrence Avenue  
Chicago, Illinois

**SPEAKER:** Andrew Palczewski  
CEO apHarmony

**TOPIC:** Recent advances in 3D Visualization

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## Andrew Palczewski

Andrew Palczewski is the CEO of apHarmony, a Chicago software development firm. apHarmony offers custom software and web development for businesses across a wide variety of industries, with extensive experience in the manufacturing and home improvement industries.

Andrew holds a Masters in Computer Engineering from the University of Illinois at Urbana-Champaign (2006), and was previously honored to receive a scholarship from the Polish Engineers.

## Abstract

This presentation will review recent advances in 3D product visualization. 3D visualization is a new technology that allows companies to virtually model how their products will look in their customers' homes. apHarmony recently developed software that allows the customer to take a photo of their kitchen, and change their cabinets and countertops styles and colors in 3D.

The presentation will start with a quick demo of the software, and then describe how the realistic 3D images were generated. We will review the lighting, shading, and image blending techniques that allow a computer to create realistic images from virtual models.

## Administration Updates



On February 16th 28 members and sympathizers of PAEA participated in the Tour of **Argonne National Laboratory** organized by one of our members Ms. Sophia Hofkin. Highlights of the tour are given below.

Argonne National Laboratory seeks solutions to pressing national problems in science and technology. The nation's first national laboratory, Argonne conducts leading-edge basic and applied scientific research in virtually every scientific discipline. Argonne researchers work closely with researchers from hundreds of companies, universities, and federal, state and municipal agencies to help them solve their

specific problems, advance America's scientific leadership and prepare the nation for a better future. With employees from more than 60 nations, Argonne is managed by the UChicago Argonne, LLC for the U.S. Department of Energy's Office of Science.

The **Advanced Photon Source (APS)** at the U.S. Department of Energy's Argonne National Laboratory is one of the most technologically complex machines in the world. This premier national research facility provides the brightest high-energy X-ray beams in the Western Hemisphere to more than 5,000 scientists from around the United States and the world. These scientists come to the APS from universities, industry, medical schools, and other research institutions to carry out research that promises new discoveries in nearly every scientific discipline, from materials science to life science, chemistry, environmental and planetary science, and fundamental physics. The X-ray beams provided by this remarkable facility enable the collection of data in unprecedented detail and in amazingly short time frames. The knowledge researchers gain here is having a real and positive impact on our technologies, our health, our economy, and our fundamental understanding of the materials that make up our world.

**ATLAS** – The Argonne Tandem Linac Accelerator System (ATLAS) is the world's first superconducting ion accelerator ever built. It is capable of accelerating ions of all natural elements from hydrogen to uranium for research into the properties of the nucleus, the core of matter, the fuel of stars.

**Nuclear Energy Exhibit** showcases Argonne's rich heritage in the development of nuclear reactors and its current role in the development of next generation reactors and fuel cycle technologies



PAEA supported **2013 Engineers Week** and Michael Niedzinski attended the **Washington Award Dinner** on February 21st. About 350 attendees participated in the event. PAEA was introduced as an organization with an almost 80 year history and tradition. List of the society participants is shown below. Met with Colonel Schreiner from US Army Corps of Engineers. He will provide a technical presentation about re-engineering of Northerly Island in the fall of 2013.

Qualified students are urged to apply for **2013 Ralph Modjeski scholarship**. Three students will be awarded scholarships.

**2013 MEMBERSHIP DUES.** Please note that the dues schedule for 2013 did not change. Dues are \$50 per year, senior citizens and students \$25 per year. We strongly encourage you to pay your dues in January or, if not possible, in February. 2013 membership cards will be provided to all those who paid their dues. Questions? You may inquire at the meeting or send an email to: [paea.info@gmail.com](mailto:paea.info@gmail.com)

[www.polishengineers.org](http://www.polishengineers.org)