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## Computer Science Colloquium

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# The Universal Visualization Platform (UVP)

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Wednesday, 17 November 2004  
Olsen 311  
Refreshments at 2:30pm, Talk from 3:00-4:00

There are a number of visualization systems to choose from when analyzing data but only a few of these allow for the integration of other visualization and analysis techniques. There are even fewer visualization toolkits and frameworks from which one can develop one's own visualization applications. Even within the research community, scientists either use what they can from the available tools or start from scratch to define a program in which they are able to develop new or modified visualization techniques or analysis algorithms.

We will present our general-purpose platform for constructing numerous visualization and analysis applications. The focus of this system is the design and experimentation of new techniques, and where the sharing of and integration with other tools becomes second nature. Moreover, this platform supports multiple large data sets, and the recording and visualizing of user sessions. We will describe the Universal Visualization Platform (UVP) as a modern data visualization and analysis platform currently used by a number of students for their doctoral research and students in classes for their projects. The UVP was developed by 14 graduate students (and one high school student) and has been licensed to several companies.

We will briefly present 3 deployed applications of this research platform, each with different requirements:

- THREAD with the Center for Industrial Competitiveness at UMass Lowell (Min Yu and John Sharko)
- Analyst's Workstation with Evident Software, Inc. (Alex Gee and Hongli Li)
- GeneE with the Program in Molecular Medicine at the UMass Medical School (Chris Lawrence and Mary Beth Smrtic)