

**Meeting:** 1003, Atlanta, Georgia, MAA CP F1, MAA Session on Mathlets for Teaching and Learning Mathematics

1003-F1-394      **Don Spickler\*** ([despickler@salisbury.edu](mailto:despickler@salisbury.edu)), Math/CS Department, Salisbury University,  
Salisbury, MD 21801. *The PascGalois Project*.

The PascGalois project was created several years ago by Drs. Michael Bardzell and Kathleen Shannon as a method to help students visualize concepts in Abstract Algebra. The idea was to create images similar to color versions of Pascal's triangle, the difference was that the elements being used in the triangle were elements of a generic finite group and the update rule was the group operation. The images that were produced illustrated many key topics in abstract algebra, such as, subgroups, normal subgroups, quotient groups, subnormal series and isomorphisms. Recently, the NSF has provided funding to expand the PascGalois project. As part of this expansion the original program, developed by Dr. Shannon for the PC, was to be made platform independent. In addition, the revised program has a new user interface, has added a number of built-in group structures and has added a parser that allows for products and quotients of the base groups. In the talk we will discuss the current features of the program, pedagogic methods for implementation into an Abstract Algebra course and the direction of future versions. (Received September 13, 2004)