

# PowerWorld Corporation Background

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***PowerWorld***  
Corporation

# PowerWorld Simulator



- User-friendly and highly interactive power system analysis and visualization platform.
- Integrates many commonly performed power system tasks
  - (Contingency Analysis, Time-Step Simulation, OPF, ATC, PVQV, Fault Analysis, SCOPF, Sensitivity Analysis, Loss Analysis, Transient Stability)
- Designed to operate on Microsoft Windows 2000/NT/XP/Vista/2007 platforms

# PowerWorld Simulator History

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- Version 1.0 created in May 1994 at the University of Illinois Urbana-Champaign by Professor Thomas Overbye (Ph.D.)
- Impetus for early versions was to teach power system operation to non-technical audiences.

# PowerWorld Simulator History

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- PowerWorld Corporation was formed in 1996 with the goal of further developing and commercializing the Simulator tool.
- Founded by a graduating PhD student and three University of Illinois Urbana-Champaign professors
- First three employees worked part time while finishing graduate school at UIUC

# PowerWorld Simulator History

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- Today: Simulator version 16
  - Virtually unrecognizable from the early versions of the software
  - Has evolved into a powerful power system analysis and visualization environment capable of solving very large systems
  - Company now has 11 full time employees, and a varying number of part time employees / graduate student interns

# PowerWorld Software Development Team – 9 permanent people



- Tom Overbye, Ph.D. (1994 and before)
  - Company founder and a professor at University of Illinois
- Jamie Weber, Ph.D. (1997)
  - Director of Operations
- Kollin Patten, M.S.E.E. (1997)
  - Director of Engineering
- Kyle Johnson, B.S. C.S. (2003)
- Caroline Marzinzik, M.S.E.E. (2004)
- Matt Davis, Ph.D. (2009, part-time 2003)
- Angel Aquino-Lugo, Ph.D. (2010, part-time 2007)
- Thomas Nicol, M.S.E.E. / B.S. C.S. (2011)
- Kate Davis, Ph.D. (2011, part-time since 2007)

# PowerWorld Corporation Business and Consulting Team

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- Mark Laufenberg, Ph.D. (July 1996)
  - President
- Kelley Wegeng (May 1999)
- Scott Dahman, M.B.A, M.S.E.E (August 2003)
  - Director of Business Development
- Santiago Grijalva, Ph.D. (May 2001 - 2009)
  - Left in August 2009 to be a tenured professor at Georgia Tech

# PowerWorld Software Team Support

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- All developers are involved in all parts of the software process
  - Write software
  - Provide email and phone support
  - Give training
  - Write help documentation
  - Communicate with customers regarding potential new features



# Tools used by PowerWorld: Development Language



- Development Language
  - Embarcadero Delphi XE presently
    - Visual, Object-Oriented, windows development language
  - Most of code is written in-house
  - Make use of third-party, royalty-free software when appropriate
    - Toolbars and Menus
    - HTTP, HTTPS, FTP, FTPS Connections
    - Lock and Key Software
    - UCalc32 DLL (parses expressions)
    - Zip/Unzip DLLs (PowerWorld Project files)

# PowerWorld Corporation

## Development Process Summary

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- Flexible Development
- All developers are involved in every facet of the process
  - Ensures that knowledge is not locked in one employee
  - Clients can talk to any of us and get help
- Customers drive the development
  - Customer feedback is vitally important to us
  - Call us: (217) 384-6330
  - Email us: [support@powerworld.com](mailto:support@powerworld.com)