The Real World is Coming…

- Some general thoughts
  - It is everything people say it is
  - Fast-paced...extremely fast-paced
  - Writing well is more important than you think
The Educated Assumption

- Real-world problems are complex and ill-defined, multi-disciplined, and can have multiple solutions

- How do you fill in the blanks?
  - Engineering judgement
  - Experience

- Which solution is best?
Your Second Family

- Learn about your company
  - History
  - Values
  - Structure
    - People
  - Customers / Vendors
  - Cash flow
  - Resources
  - Trade secrets
Respect the Chain of Command

- Know your corporate structure
- Follow the ladder up
- Don’t leave someone out
- Who needs to be aware? Who doesn’t?
Under the Bus

- Be very wary of this
- It’s easier to do than you think!

Poor planning on your part does not constitute an automatic emergency on my part
Ownership

- The success or failure of a project depends on you
- Learn about all parts of the project – become multi-disciplined
  - Arm-chair management won’t cut it
- Anticipate what is needed – be pro-active!
The Inquisitive Idiot

- Think before you ask!
- Do your research and provide your thoughts first
Tunnel Vision

- Don’t lose sight of the big picture
- View the picture from all angles
  - What you do could affect someone else’s job
The Enemy of Good…

- Perfection does not exist
- Learn to define and accept “acceptable”
The Paper-Trail

- Document, document, document!!
  - Company requirement
  - You will forget, papers don’t
  - CYA = Cover Your @$#
    - It’s not what you know, it’s what you can prove

- Organization is key
  - Organized mess doesn’t work anymore
I Can Write Good

Every year, we buy ten cases of paper at $35 each; and every year we sell them for about $1 million each. Writing well is very important to us.

- Bill Browning, President of Applied Mathematics, Inc.

I'm sorry I wrote you such a long letter. I did not have time to write you a short one.

- Blaise Pascal

- Everything must be well-written
  - Reports, papers, memos, emails, everything
- Choose your words carefully, there can only be one meaning
- Remember your audience
Stage-Fright

- Presentations are inevitable - be prepared!
- How do you prepare yourself?
- What makes a good presentation?
  - What makes a bad presentation?
The longest title I could come up with so this slide seems really important and consequently draws attention away from me

- I think we can all agree that this is an example of a bad presentation
- There is so much text on this slide that it’s hard to make anything out
- Plus, I’m reading this slide to you so 1) I’m not even facing you, and 2) don’t lie, you’re trying to read this while I’m reading it to you
- So why am I even up here talking? You’re not listening to me and there’s no reason to listen to me because I’m not adding anything to this slide. I could just as easily have given you the slide to read yourself and you would have gotten the same amount of information from it
Stage-Fright

- Presentations are inevitable – be prepared!
- How do you prepare yourself?
- What makes a good presentation?
  - What makes a bad presentation?
- Practice, practice, practice!
The Practical Engineer

- The “pie-slice” approach
  - Less is more
  - What is negligible?
  - Work smarter, not harder
    - Computer simulation vs. hand calculation
Random Thoughts

- You will make mistakes
- GIGO = Garbage In, Garbage Out
- Take advantage of your company’s benefits
- Leave work at work
In The End

The Real World is Coming…

Be confident, you are ready!