

# Successfully Completing OEE Projects

## J. C. Harrison – Roeslein & Associates Inc

### Interactive Session

## Session Topics

- **Company Information Summary**
- **Personal Summary**
- **Steps To A Successful OEE Project:**
  - **Customer Expectations**
  - **Preliminary Planning**
  - **In House Development**
  - **On Site Deployment**
  - **Follow Up Support**
- **More Questions & Answers**





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- Capabilities

- Consulting & Engineering
- Project Management & Construction Services
- Systems Integration & Modular Fabrication

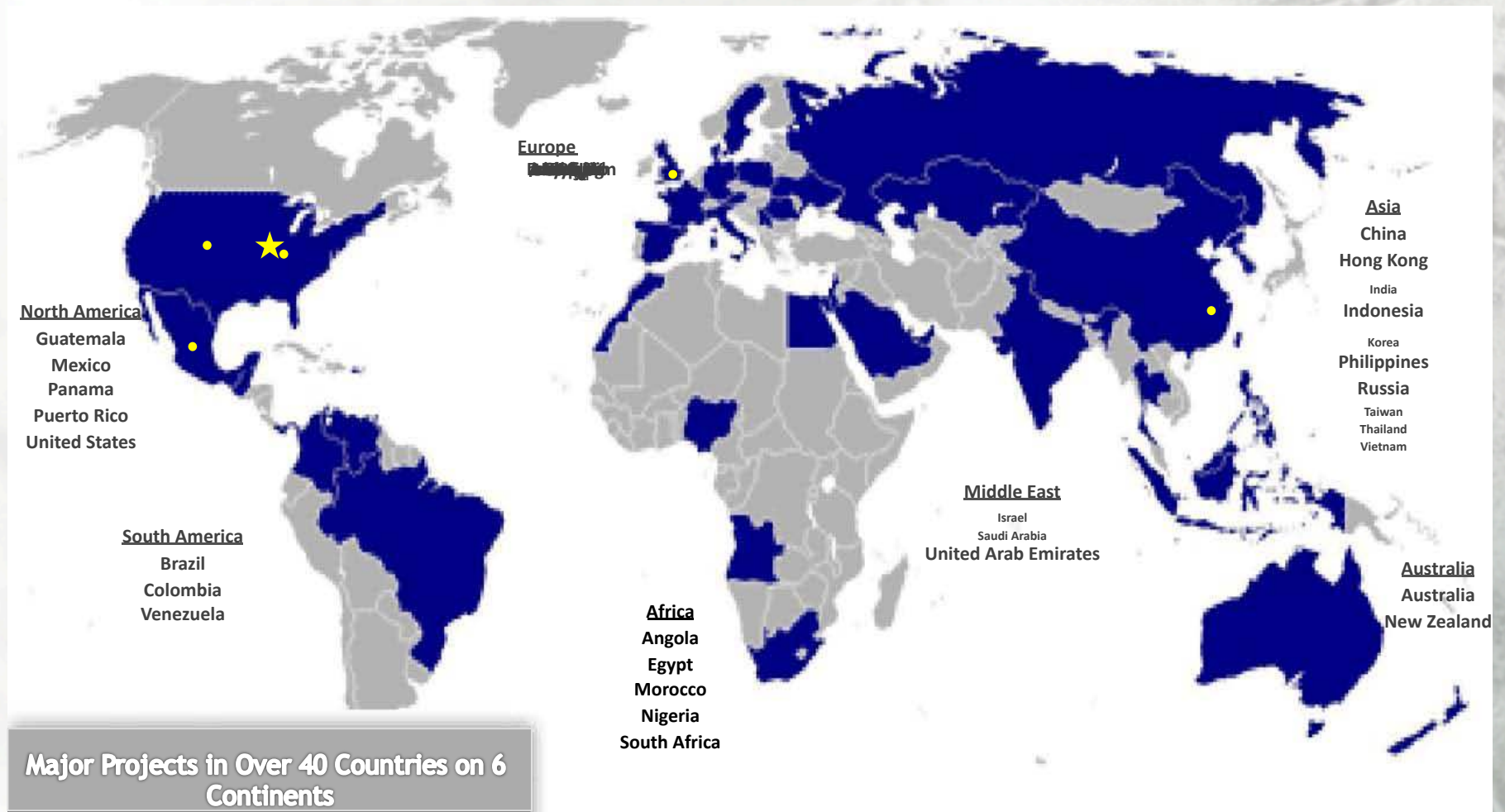
- Services / Locations

- Engineering: St. Louis, MO
- Engineering: Denver, CO
- Engineering: Birmingham, UK
- Engineering & Modular Fabrication: Shanghai, China
- Modular Fabrication: Red Bud, IL
- Sales Office: Monterrey, Mexico

- Recognitions

- 2009 St. Louis RCGA Top 50 Company
- 2006 State of Missouri Exporter of Year

# Global Presence





# Major Markets

- Agriculture



- Beverage



- EPCM



- Food



- Petrochemical



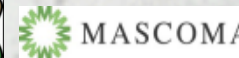
- Pharmaceutical



- Process Manufacturing



- Renewable Energy



- Oil & Gas





[www.roeslein.com](http://www.roeslein.com)





# Modular Process Modules





# Modular Process Systems





# Fabrication and Modularization

- 350,000 square foot facility situated on 17 acres.
- Merit shop labor force.
- Fabricate, unitize, modularize, preassemble & test complete systems prior to installation.

*600+ Modules Shipped  
Worldwide*

*In Last 18 Months*







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## Personal Information:

- 20 Years Experience (made lots of mistakes)
- Started as a Cad Designer > Electrical Project Engineer > Project Manager > Electrical Engineering Manager > Systems Engineering Manager
- Now Systems Engineering Manager and keep the system department motivated with bleeding edge technology!







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# Successfully Completing OEE Projects





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## Customer Expectations:

- How was the project sold? Lump sum, bank of hours, T&M
- Does the customer know what OEE is vs. simple efficiency ?
- Kick off meeting, ask twice, then repeat (as if you are working in a foreign country)
- Is the scope/deliverables clearly defined?







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## Preliminary Planning:

- Network Architecture
  - Communication Methods
  - Bandwidth Considerations
  - Bridging old networks with new networks
- Existing Data
  - Paper
  - PLC (Can I get to the production and downtime information)
  - DCS
  - Databases (local and/or remote)

» Cont....





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## Preliminary Planning:

- Operator Entry
- Security
- Sample Reports
  - Never start a project with a customer and give the customer a blank canvas, and avoid internal projects for supervisors and managers in which they have a blank canvas.
- Determine the Data Verification Process PRIOR to starting the project.....how will I know that my data is correct?







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## In House Development:

- Evaluate skill sets of employees vs. scope of OEE project vs. project schedule.
- Is additional training needed, is the time line so tight I need to hire additional help
- Are there past projects that we can start from? Are there projects from Inductive Automation that we can start with... Don't reinvent the wheel.

» Cont.....







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## In House Development:

- Assign Project with milestone dates
- Break Up the project in teams if possible, even if its just two people. If you are doing it alone, invite a co worker or even a friend/spouse to let you present your work. By sharing work or presenting your work, it allows you to find possible problems in your project.
- If the project is having delays, let the customer/manager know. Customers don't like delays, but they hate surprises even more!

» Cont...







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## In House Development (Ignition tips):

- Does the process have a “Bottle Neck” machine
- Define the downtime reasons early and not at the end of the project. This can be a bomb waiting to go off.
- Setup tag naming in a way that lends itself to templates (01 and not 1, or 001 and not 1)
- Can I use UDTs for my machines
- Build a logical tree structure for the windows and the tags
- Don't be afraid to restructure if you started wrong
- **TEST, TEST, TEST, and do more TESTING!**







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## On Site Deployment:

- SAFETY! Know the environment you are working in!
- Does the implementation require plant downtime (generally for PLC/DCS modifications)
- Have a check list going in:
  - Setup computers in location
  - Open computer to ensure nothing came loose in relocating it
  - Verify network connectivity
  - Verify communications
  - Verify Tag Data is correct
  - Start Verify complete project
  - Check Data against PLANNED VERIFICATION PROCESS







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## On Site Deployment:

- Have the reports/data reviewed by customer
- Deploy clients
- **Make Back Ups**







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## Follow Up Support:

MES/OEE Systems most often present data to users/managers that give them new ideas on evaluate the data to improve efficiencies.

Try and leave time in the project and money in the budget for these follow up changes. They are often what gets the customer/managers to really buy in to the MES/OEE system, because they make it their own!





Highly Recommended: Inductive White Paper Three Part Series -  
“Design Line A Pro”

Thank You

Questions?

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