

# Application Development & Control

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**Mill** vs. **Corporate**





## Who are We and Why are we Here?

- Mike McIntosh, International Paper
- Kevin Casper, Sonoco
- PIMA IT Planning Committee Members
- Share Similar Corporate IT Experiences
- And, we *volunteered* for this presentation (*What were we thinking?*).



# Presentation Objectives



- Discuss the “**Issues**” and “**Opportunities**” with Application control within large, geographically dispersed, Paper companies
- Share with you the “**Answer**” to the multi-faceted problem of Application Control. (The answer is “**It depends**”)
- Review some guidelines



# Environmental Issues

- Globalization, Competition, Business Environment
- Internet / Instant Customer Communications
- Cheaper technology platforms
- Proliferation of software tools(info age)
  - Access, Excel, etc
  - Portals
  - Point Solutions
- Centralize Enterprise
  - Business as an enterprise vs. location
  - Planning/Scheduling
  - Order Entry
  - Customer Support
- Use of Supply Management Depts.
- ISO 9000/9002 & BDP's
- Administrative productivity & Six Sigma
- Business as an enterprise vs. location
- Virus Attack !



## More Issues



- Move from Mill Legacy of Independence to Centralized Control.
- High cost in Resource hours to sustain instead of develop. (Standard Packages Rule!)



# I.T. Follows Business Strategy



## **BUSINESS STRATEGY**

- Decentralized to Centralized control
- Productivity / Cost Reduction
- Fewer vendors more partners
- Mill Reliability
  
- Data driven decisions
- Specialization

## **IT STRATEGY**

- Centralized control of IT and WAN
- Lean & Outsourcing
  
- Qualified Vendors & Equipment standards
- Agreed to service levels
  
- Data capture & data warehouses
- Specialization



# On a Collision Course



- Reduced IT support at mills
- IT Development process tightly controlled (RAD, FEL, PDP, Portfolio Mgmt, EIEIO)
- Increase in applications & use
- Reduce Systems Variability
- Increase in data/process control systems
- Heavier use of WAN (BROADBAND)
- Centralized (Computing & Printing)
- Windows 2000/XP lock down
- Scorecards & Metrics –
  - **Collect & Store more data**



# More Collisions



- Corporate IT Drivers
  - Misunderstood at the mill level and Poorly Communicated by Corporate
  - Consume significant IT Resources
    - SOX Compliance (And not Chicago White Sox)
    - Acquisitions, Business Growth or realignment, divestitures
    - Antibiotic Virus Defense Work (There is a fungus among us)
    - Obsolescence, System Replacement



# Typical Mill vs. Corporate Scenario



**What's wrong with you guys in Corporate Support? I can't anything done for the mill. We have requested a 1-page metric report 6 months ago! And For heavens sakes even our PCs are locked down**

**Yes, we're trying to support all PCs and extra models are a headache requiring more people – you want support costs low?**

**But it even takes a week to get a printer installed!**

**Yea, it's a all or nothing approach**

**Why can't I build applications here. I have some good people that go to the local college at night majoring in development ?**

**What program language would you use?**

**My nephew says he knows MS Access that's all I need to for this consumption metrics summary report we need.**

**Are you going to share it with others?**



# Typical Mill vs. Corporate Scenario



No not really. I think my regional manager needs it and then the 8 corporate quality managers would like to see it. I probably should include the six sigma team and the Corporate Leadership team and their direct reports.

OK- I get it its no one accept about 80 people. Do you know what this would do for WAN performance ? Remember you said you had a network problem and it was that access problem shared with 100 people!

Oh And I think the Georgetown, West Liberty and the North Scranton mills want need the database and the report as well.

That would make our T-1 lines run like 300 baud modems.

What's a baud? Do I need to programmer for that too?

Ok so what if I find a developer in the tool of your choice?  
Would you allow the Corporate group do it then?



# Scenario



OK great but I need it in next week, or tomorrow if possible.

**Next Week!?!? Well, first of all we will need to produce a Project Initiation document with a scope of work and then move it to the Corporate Portfolio Office to give the correct priority and sequencing since we have only one corporate development group all division compete for the same scarce resources.**

**Scarce resources is right! I haven't seen any of your people at the mill in the past 12 months! I need this application for my Boss nextg week!**

**We can't do it that soon!**

**Tell me something I haven't heard every day for the past year!**

**But if you don't follow this process and define your requirements and specs we have rework and cost overruns and a less then satisfied customer . Remember the Fram commercial "Pay me now or Pay me later"**

**I'm less than satisfied now! All this is a bunch of bull for a small project. Your planning piece takes 4 times as long as the development. Heck my nephew could start now and have it finished in two days. If we had the requirements documented. We can give that to him later.**



# Scenario



Well if you *DON'T* follow the Corporate applications portfolio process, then I end up with an application mess I can't support. Your nephew will move on to the skateboard pro tour and the application knowledge will be lost forever with his first concussion.

Ok so what if I find a developer in house or a consultant ? This doesn't change my drop dead date.

My advice to you is if you don't follow our process you might as well drop dead!

Enough about development, why do you need so much planning?

A competent developer would ask the same questions, document and use standard conventions of programming-same as my department

Why are you guys such control freaks? We used to take care of our own control systems and suddenly your taking over every application! You guys are like a bad fungus.

Well your adding your own local servers, sharing local data and applications throughout the whole company, but you still need our help with ERP integration and PC support, right? You need us!



# Scenario



We need you like a hole in the head. Why can't my local engineers do that work?

That's not their job to keep up with network, integration standards. Why is it that everyone wants my job can get away with it but if I try to be Mill Manager for the day everyone is immediately mad at me.

Other than the fact that you know nothing about fiber optics, we just don't like you.

What do you think the answer is between budget cuts and long term support issues? I just need to know what you can better serve our Mill Customers. I need to know what you can do next year. What do you think we should do?

**YOU NEED TO LISTEN AND REDUCE MY BUDGET. I WANT YOU TO GIVE ME MY OWN IT STAFF!**





# What Is the Big Problem?



- Mills need data collection and retrieval to keep up with constantly evolving business requirements
- Need Quick development in systems that already exist at that mill
- Corporate needs centralized control to reduce development & support costs.
- Mill & Corporate headcount is always under fire.
- Mills need immediate I.T. solutions to their data and process problems.
- We never understand the other side's drivers



# What's the Right answer?



What is the best way to design your applications control structure?

..... It Depends on your culture, technology, Business Model.

Its like running shoes... You buy the shoes that fit your feet.



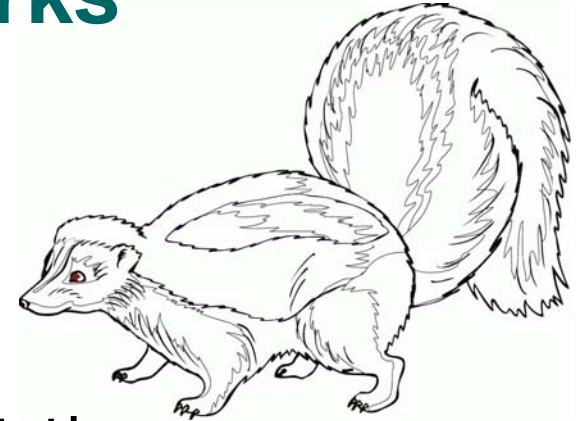
# Centralized *Theoretical* Application Control Model



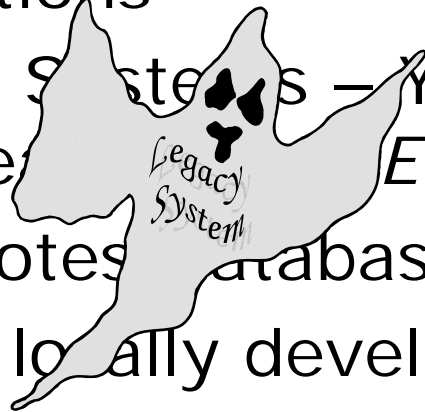
- Centralized, Centralized & Centralized.
- Standardize on applications
- **NO** local IT development.
- Central Portal development, Central Reporting development, Central Application Modifications, Central & Standard Application bolt-ons.



# Clandestine Application Reality AKA “Location Skunk Works”



- Access, Access, & Access DB Applications
- Zombie Systems – You thought they were dead *THEY LIVE.*
- Local Notes Database Applications
- Shared locally developed applications

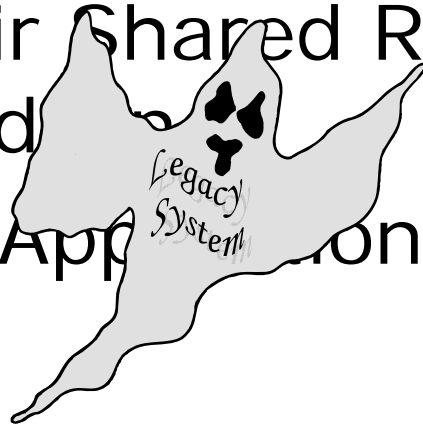




# Another Viewpoint



- Nestle Purina PetCare Company And their Shared Responsibilities
- Co-Application Control





# Nestle Purina PetCare – North America



- St. Louis based division of Nestle S.A.Switzerland
- 18 manufacturing facilities in North America
- 3.1 Million tons of pet food per year
- Approximately 1600 SKUs produced
- US\$4.5 Billion gross revenue per year



# Typical Plant I.T. Support Infrastructure



- I.S. Group comprised of I.S. Manager and support staff of three to four technicians
- I.S. Manager reports directly to the plant manager
- Controls Group comprised of Supervisor and support staff of three to four technicians
- Controls Group Supervisor reports directly to the plant Engineering Manager who reports to the plant manager



# 'Turf Wars'



- Usage of open network topologies and PCs became a shared resource between Controls Engineering and Business I.S. functions. No defined ownership or cooperation between factions!
- Lack of understanding – neither organization took the time to understand the complexities of their counterparts operating environment and end goals. Too much focus on controlling and maintaining the kingdom of knowledge.
- Misunderstanding and lack of cooperation led to a distrust between organizations to provide timely and reliable services to one another.



# Our Response to The Situation



- Develop and distribute a written guideline
- Clearly define the roles and responsibilities of both groups
- Provide a clear direction for shared support of PC/Computer based Control and MES systems, industrial communications networks, and supporting budgets, to the maximum benefit of the company.

*Seek input and buy-in from plant I.S. and Controls groups.*



# Critical Success Factors



- Communication
- Common Strategic Direction
- Willingness to Understand The Other Side
- Trust Between the Two Groups
- Accountability
- Process Evolution



# The Guideline Defines



- Administrative Responsibilities
- Support Responsibilities
- Security Responsibilities
- Skill Set Requirements
- Communication and Implementation Guidelines



# Administrative Matrix

<b>Shared Area</b>	<b>Function or Technology to be Administered</b>	<b>Primary Administration</b>	<b>Secondary Administration</b>	<b>Base Skill Sets***</b>
PC Administration	Asset Management	I.S.	I.S.	Both
	Installation/Configuration	I.S.	I.S.	Both
	General Maintenance	I.S.	I.S.	Both
	Software Maintenance	I.S.	I.S.	Both
Network Administration	Infrastructure Management	I.S.	Controls	Both
	General Maintenance	I.S.	Controls	Both
	General Administration	I.S.	Controls	Both
	LAN Security Management	I.S.	I.S.	I.S.
Data Administration Capture/Retrieval	iFIX	Controls	Controls	Both
	SCIM	Controls	Controls	Both
	MQ Series	I.S.	I.S.	Both
	RPADS	I.S.	I.S.	Both
	Table Structure	I.S.	I.S.	Both



# Results



- Increased level of communications between plant I.S. and Engineering Controls groups.
- General reduction in tension and elimination of 'turf wars' between the two groups.
- Increased level of skill sets due to availability of training funds.
- Faster/smoothier implementations of new systems
- Improvement in systems support and service to the end users of the technology.



# What does this have to do with Me?



- Define the playing field – Set the policy
  - Centralized on all
  - Centralized with some local
  - Local limited development
  
- Agree on it (Group Together)
- Document it
- DO IT!
- Audit it
- Evolve it.