Implementation Phase

Ideas for Improvements

Problem:

- bringing software into production is hard
- takes a lot of time
- requires a lot of coordination
- error prone

Solutions:

- standardized PIRs
- standardized applications & environments
- continuous integration
- automated deployment & verification
- version control for serialized job definitions

Standard PIRs:

- Sets clear expectations
- visible request queue
- enforced timing (scheduled date & time)
- stakeholder approvals (manager, lead, business, qa, deployment, scheduling)
- clear, standard instructions (not just Unix commands in MS Word)

Standard apps & environments

- Helps make automation easier
- accounts & groups (prodctl, prod???)
- filesystems (/applp/???/ bin, scripts, sql, etc)
- application staging (/applt/??? or pulled straight from repository)

What is Continuous Integration?

"Continuous Integration is a software development practice where members of a team integrate their work frequently, usually each person integrates at least daily - leading to multiple integrations each day. Each integration is verified by an automated build (including test) to detect integration errors as quickly as possible."

- Martin Fowler

Automated deployment & verification

- non-interactive deployment program using input files
- interactive setup script creates deployment input files
- pre-verification script validates deployment input file
- deployment program can be scheduled or run manually
- post-verification script called at end of deployment
- communication (automated email with link to PIR & status)

Version Control for serialized job definitions

- initialize a git repository
- export job definitions to XML
- check in
- automate with daily diff emails