



PROJECT MANAGEMENT SOLUTIONS THAT *SIMPLY WORK* SINCE 1989.

Leveraging the Technology of Today and the Future in Project Controls

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January 31, 2017
Third Annual Project Controls SUMMIT



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2

Tool Matrix

Project Controls Business Process	ORACLE PRIMAVERA	Asta Powerproject	PRISM	Deltek ACUMEN	ProjectStatus
Portfolio Management	P6, Unifier				View
Planning & Budgeting	Unifier	Powerproject	G2		Collaborate
Estimating		BidCon	Estimating		
CPM Scheduling	P6	Powerproject	Scheduling	Fuse	Status
Cost Management & Reporting	P6, Unifier	Powerproject	G2	Fuse	Collaborate
Document Management	Unifier		Prism Docs		
Change Management	Unifier		G2		
Engineering Forms	Unifier		G2		
BIM/Schedule Integration		Asta BIM			
Risk Analysis	P6 Risk	Asta Risk		Risk	Collaborate
Risk Management & Mitigation	P6			Risk	Collaborate
Role Based Cloud Dashboard	Dashboard		Dashboard		View
Earned Value	P6		Earned Value		
Claims Support & Analysis	P6	Powerproject		Fuse	
Facility Management/Work Orders	Unifier				
Mobile online/offline support	Mobile	Mobile			browser
Integration with Finance/ERP	Gateway		Integrator		Gateway

DRMcNatty supports these project controls tools as an authorized partner, trainer and implementer as well as providing trained and supported project staffing resources.



Abstract

Leveraging Technology of Today and the Future in Project Controls

Program management systems should be designed based on the best available current technology to meet the clients' requirements while still allowing for the flexibility to adopt new and changing technologies as they evolve in the future... all the while ensuring a "common core system of record" that will survive the life of the program.

For more extensive technology trends, reference recent report from Jim Zack: "Trends In Construction Technology".

Go to: www.DRMcnatty.com/Resources/News... Posted under "Additional News" Dec 2016



Agenda

Leveraging Technology of Today and the Future in Project Controls

- Concept – a “common system of record”
- Perceptions – how people think about technology
- Issues – encountered between people & technology
- Solutions – a combination of standards & flexibility
- Examples – applications of current technology
- Trending Technologies – and potential impacts
- Conclusions – things to think about



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5

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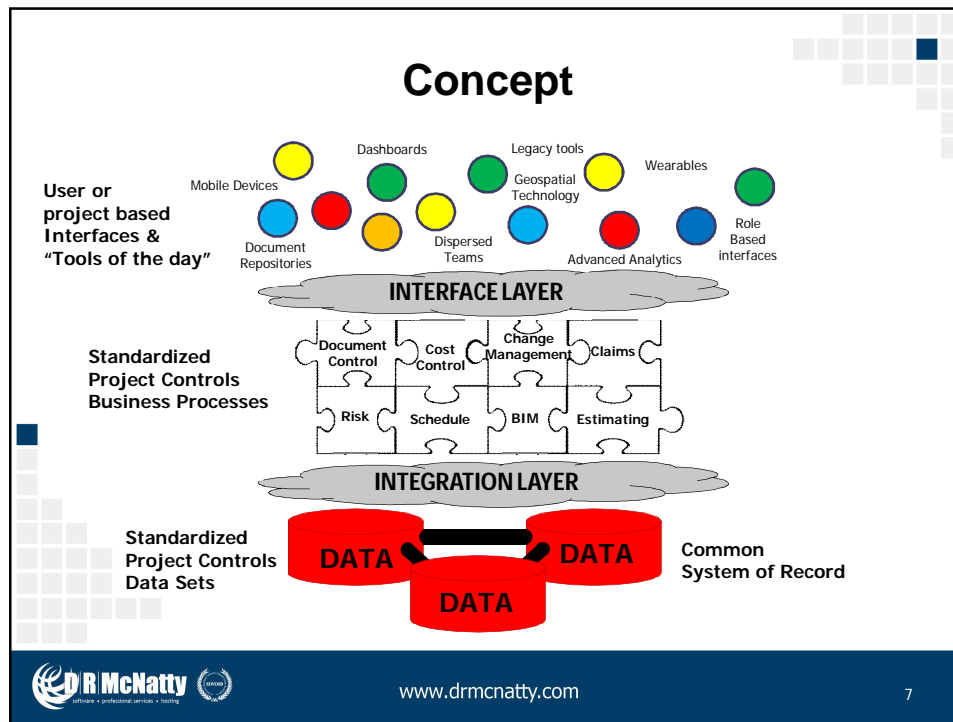
Concept (a common system of record...)

- Many available solutions to various business processes on many different platforms.
- Start at the bottom – what tool will provide a common repository for all project data, for the life of the program?
- What tool set can capture, stabilize and secure data integrated in a “common system of record”?
- Select the most efficient user facing solution that is capable of integrating with the system of record.
- Criteria: **Security, longevity, integration & control.**



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6



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Perceptions (by people...)

Overcoming people's perceptions on how they think things are, or should be, will have the biggest impact on how you move forward.

- Stick with what worked before...
- Short-term or single project solutions...
- Stakeholder tools and standards...
- Can't live without "Best of Breed" or latest trend...
- Resistance to change...

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8

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Issues (caused by perceptions...)

Technology is the easy part – getting people to agree on standards and how to apply technology requires a plan, patience and persistence.

- Alignment of data between separate tools.
- At what step in a process data has to be captured and stored in the system of record.
- Getting user participation and adoption.
- Maintaining security, context and an audit trail.



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9

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Solutions (to achieve success...)

- Management vision – how high does it go?
- Management control – do they actually have it?
- Foundation is the most important part.
- Interfaces will change over time.
- The integration layer will need to adapt to different inputs while maintaining security and data integrity.
- Develop a culture of flexibility while respecting and preserving the foundation.



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10

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Examples (current technology...)

- 40-year Transportation Program
 - Common web interface to collect data from contractors.
 - Multiple tools used to manage projects.
 - Web interface provides role based team interaction.
- Large Utility with multiple departments
 - Each group wanted to define their own environments.
 - Web interface used to improve user adoption & team interaction.
- Large, multi-regional GC/CM
 - Multiple projects, schedules, documents, schedulers.
 - Information scattered across networks, computers and software.



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11

Example # 1

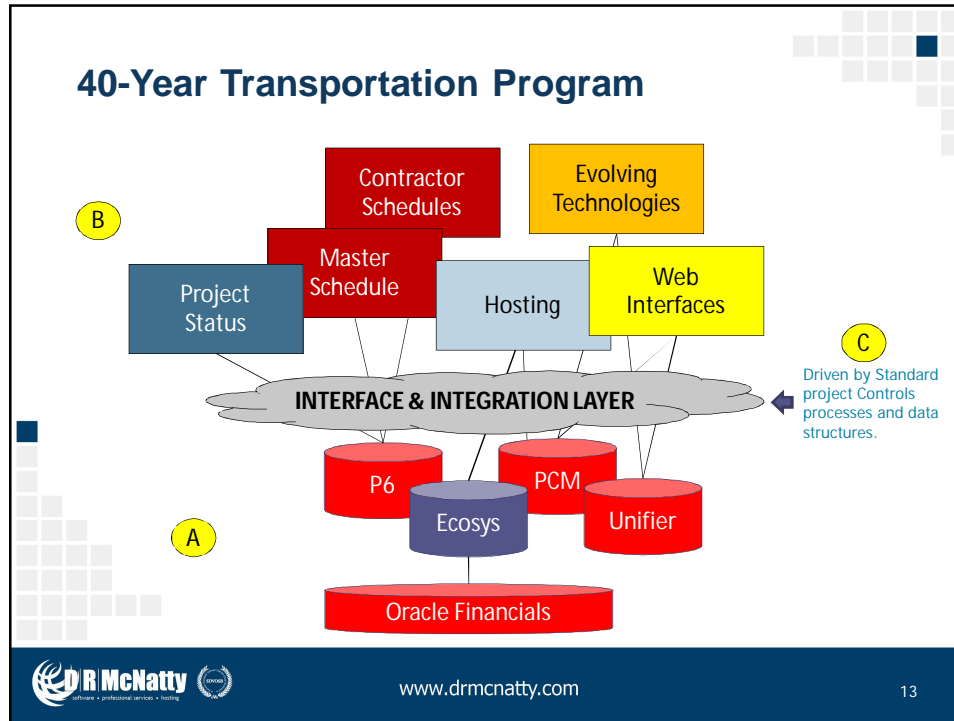
40-Year Transportation Program

- Owner engaged implementation team to design.
- Deployed through hosting vendor to simplify responses.
- Initially deployed independent of PM's and CM's.
- Hosted system can be brought in-house, at will...
- Foundation software vendor meets all criteria.
- Licensing strategy saved hundreds of thousands of \$.
- Web interface layer used to facilitate user adoption.
- Integration to connect efficient web data collection to foundation with a complete audit trail.



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12



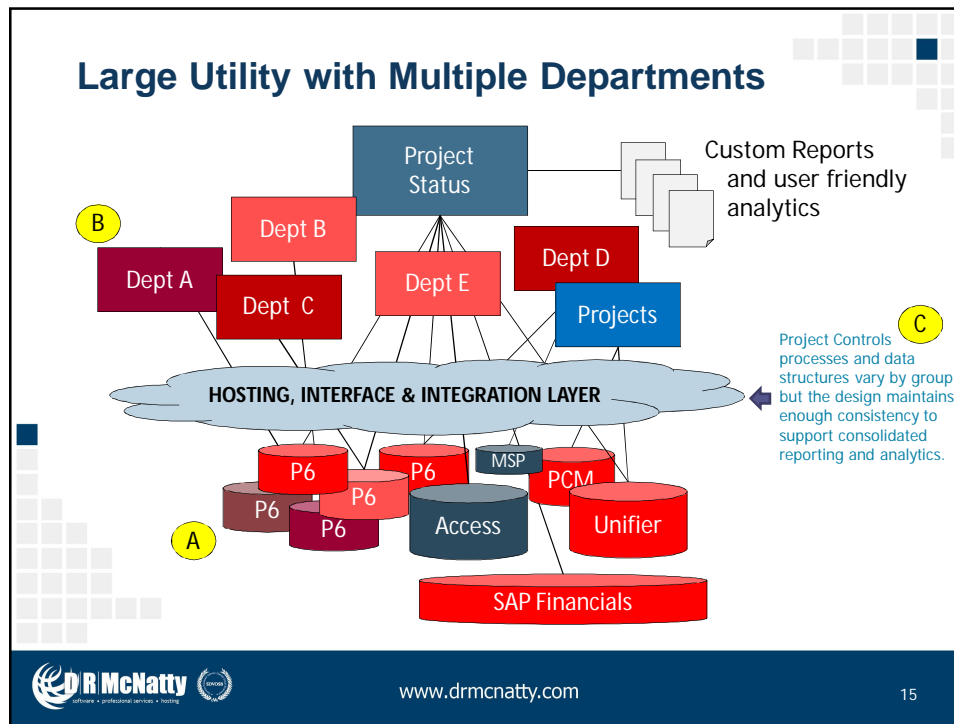
13

Example # 2

Large Utility with Multiple Departments

- Multiple P6 databases.
- Different versions, different data structures.
- Integration with legacy data sources.
- Integration with SAP.
- Constant cycling of participants.
- External advocating of standards and versions.
- The “Anti-Enterprise” system.
- Able to meet management level reports across groups.

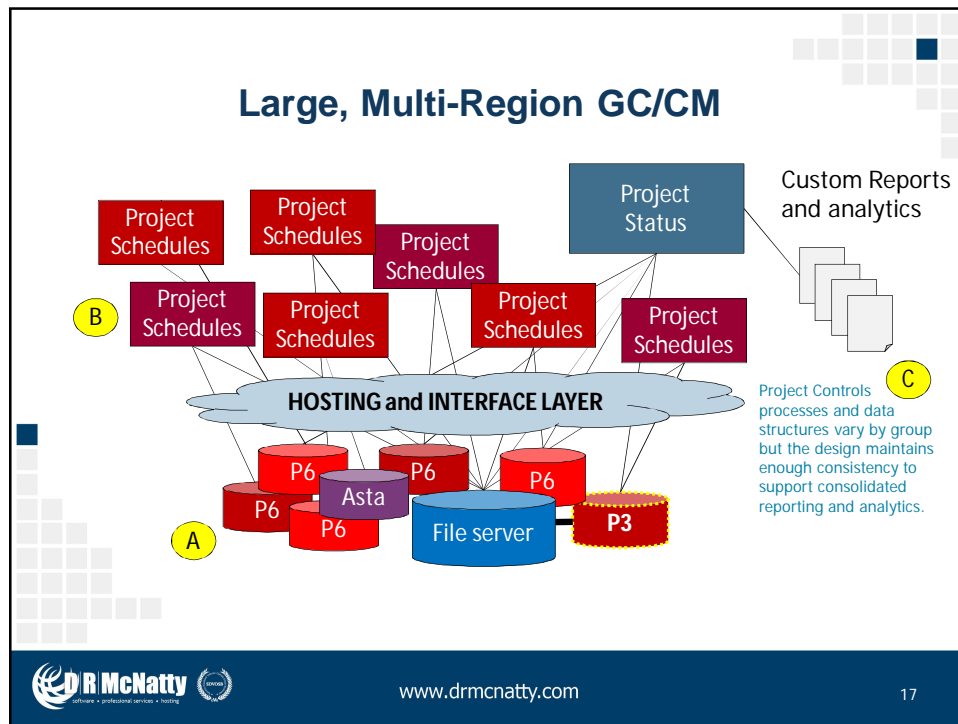
14



Example # 3

Large, Multi-Region GC/CM

- Centralized data environment (multiple databases)
 - Data was scattered across internal/external computers.
- Centralized storage of supporting documents & files
 - Data and hardcopies scattered everywhere.
- Ability for management to monitor all schedules.
- Management ensured of data security and controlled access.
- Ability to integrate reports across all databases.



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Trending Technology...

- BIM - 4D (3D CAD + Schedule)
 - As standards evolve this becomes easier to do.
- BIM - 5D (3D CAD + Schedule + Documents)
 - The WBS is the core data structure element assigned to doc's.
- BIM - 6D (3D CAD + Schedule + Documents + Costs)
 - The CBS aligns with the WBS... (good luck).
- Anything-Anytime-Anywhere wireless access
 - Will solve the current limits related to access and speed.

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18

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4D, 5D, 6D, BIM, ~~AAA0~~

- The successful application of current and future technology trends require:
 - Taking responsibility for defining standard data environments.
 - Supporting flexible interfaces while preserving the “system of record”.
 - Spend wisely – understand all of your needs and how they impact licensing and deployment.
 - Wireless technology access and speed improvements.
- Success = Standards + Discipline + Flexibility.



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Conclusions (things to think about...)

- Owners can define the “Rules of Engagement”.
- Application of new technologies can increase productivity and reduce costs while ensuring quality.
- Sources of funding may require full project controls and standard data structures.
- New technologies can be worth the effort to gain increased adoption across the program team.
- Owner deployment of “common system of record”.
 - “Asynchronous data (data that is not aligned) can only be solved by proactive owner responsibility and action.



Questions & Comments

Thank you for participating

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21