

A Modernization Strategy Is More Than Just About 'Technology'

10B

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SAS^{IT}

Co-branded Logo Footprint
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Must Fit Within This Space

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A Bit About Me

- > SAS^{IT}, Auckland, New Zealand.
- > 18 years 2E/Plex Hybrid.
 - Developing and managing teams.
 - Core banking & debt management
 - Application processing
 - Software services, integration & bespoke systems
- > Other facts
 - Keen footy fan.
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Agenda

- > What is modernisation?
- > Defining modernisation scope
- > Tools and options
- > 2E Model management/maintenance
 - A 'Model Tidy' approach
- > Business impacts
 - Customer
 - Internal

Modernisation Goals Have Moved

> 25-40 Years ago

- No punch cards, keyboard introduced then a mouse

> 15 Years ago

- Scrape the screen i.e. extend
- Put a pretty new front end on the application

> 10 Years ago

- Get off this legacy platform, but..... There's not enough time the world is going to end!
- What Y2K bug. May as well keep these systems going a little longer....I'm retiring soon!!! That's somebody else's problem. **(9 years ago)**

Modernisation Goals Have Moved

> 5 Years ago

- These Java and .NET systems seem to take a long time to build. Why are there so many failed 'Big Bang' projects?
- Actually, there is a lot of useful stuff in these old applications. Let's expose this business logic via services.

> Now

- Modernisation involves
 - The platform
 - The look 'n' feel
 - The interoperability
 - The way we program our applications.

Modernisation Drivers

- > Application looks old, fashion police and marketplace
 - Less sales despite increasing marketing spend.
- > Opportunity to redesign and rethink direction
 - Internationalisation, Unicode, accessibility standards, governance or cheaper hardware.
- > Application size, complexity hence maintenance costs
 - Time to market
 - Application integration & spaghetti code
- > Availability of skilled staff.
 - System i (.NET or Java)
 - Relative experience versus remuneration expectancy

Defining Modernisation Scope

> Determine modernisation scope/goals

- Architecture, target platform(s) and software
 - WAN, Smart Client, Thin Client, RichUI.
- Look 'n' Feel, accessibility and localisation
- Business goals
- Timeline
- Budget
- Licensing
- Project resource
- Phased or big bang
- Scalability constraints

Determine Modernisation Scope

- > Investigate **ALL** technology options and rate versus your businesses modernisation goals and criteria
 - Assess these as a modernisation team
 - Involve your development team
 - “Buy In = Traction = Control = Likely to succeed”

- > Start training your development team early
 - Sow the seeds of change and encourage self learning
 - There is NO ‘Silver Bullet’
 - All options have effort/reward ratios to consider
 - All options require hard work, knowledge and change agility

Modernisation Options

- > 2E port to alternate 4GL focused tool
- > 2E backend – own Java/.NET client
- > RPG/RPGLE to 3GL (Java/.NET)
- > Integrated GUI generation
- > Screen scrapper (i.e. NewLook or HATS)
- > Complete rewrite of application logic in .NET or Java?
- > Create your own generator?

2E Port To Alternate 4GL Focused Tool

Pro's

- > Familiar 4GL coding mentality
 - One skill set
 - Other platform options
- > Some tools have automated bridges. Some bridges more mature than others
- > Continue with proven 4GL productivity ratios over 3GL
- > Multi-platform deployment options

Con's

- > Up skilling and developer adjustment i.e. learning curve guaranteed
- > Vendor lock-in
- > Only select few have cross platform capability



CA 2E to CA Plex

- > Closest fit to 2E methodologies and practices. One IDE.
- > Near 100% bridge (via ADC Austin)
- > Supported 2E patterns for continued 'I' development
- > Allows a gradual migration
- > Very extendable. Access to WebClient, YouEye, Plex-XML & Websydian
- > Powerful concepts like Metacode & Inheritance.
- > If using the multi-platform approach exposure to Visual Studio and Eclipse will be required.

Tool Trade-Offs

Area	Plex	EGL	WinDev	LANSA
Multiple platform generation	Yes	Java/ COBOL	Deployment Only with Runtime	Portfolio Tools
International Channel Support	Yes	Web	Web	Yes
Forum Activity Levels	Moderate	High	High	Moderate
2E Port (Bridge Support)	Very Strong	Early Stages	None	Most Functions
Product Maturity (Years)	15+	3+ *	25+	20+
Pricing Model	Enterprise	Commercial	Commercial	Enterprise
Similarities to CA 2E	Excellent	None	None	Some
Single Toolset	Yes **	Yes	No	No
Extendable by Partners	Yes	n/a	No	Yes

* Been around on zSeries until this re-badge under RDi. ** Some addin's that are integrated.

2E Backend – Own Java/.NET Client

Pro's

- > Retain business knowledge and coding in 2E
- > Componentised and then open up system via SOA, web services and stored procedures.
- > Higher level of code design capability for client
- > Staged approach if preferring rewrite option

Con's

- > Higher maintenance with 3GL environment option
- > Time to market reduced
- > Higher level of retraining – HR and team challenges
- > What about Web 3.0 – Rewrite client again?

RPG/RPGLE to 3GL (Java/.NET)

Pro's

- > Largely automated
- > Consistent 2E generated code leads well to efficiencies with processing over hand coded RPG.
- > One step at a time approach

Con's

- > Generally a straight port (matching op codes) not utilising the advances in the target languages
- > Often charged on a per line basis and usually only ever as a service. 2E produces lots of repeating code so negotiate!
- > Higher maintenance with 3GL environment option

Integrated GUI Generation

CA 2E Web Option and SAS^{IT}'s QuickstepTM

Pro's

- > Quick to implement. Cheap.
- > Tightly integrated with CA 2E development environment. Non evasive.
- > QuickstepTM locally deployed. Suited to end users sites and in-house systems. 2E 8.5 ✓
- > Elegant subfile handling
- > Web Option has extends application reach to the Web
- > Both customisable

Con's

- > Suited to pure 2E developed screens and environments
- > Tactical rather than long term. New life into the 5250.
- > Only small steps towards a modernisation/migration plan
- > Limited scope for Look 'n' Feel
- > Happy 5250 clients unlikely to move. True for all options!

www.quickstep.net.nz or talk to me later.

Screen Scrapper (i.e. NewLook or HATS)

Pro's

- > Quick to implement. Cheap
- > Can be performed by non developers typically
- > NewLook in particular has been strongly extended recently. iPhone!
- > Covers all 5250 screens which GUI generated do not.

Con's

- > As integrated GUI generation solution +
- > SDLC constraints if performed outside of development

Rewrite of application logic in .NET or Java?

Pro's

- > Availability of skilled developers. More of them?
- > Take advantage of emerging technologies sooner
- > More language choice
- > Ability to re-factor/design the application

Con's

- > Costly. May be mitigated by off-shoring
- > Risky. Budget, creep and up-skilling.
- > .NET or Java? What's next? Will you be done before the next fad.
- > 3GL programming
- > Slower

Create your own generator?

Pro's

- > You are in control of what gets generated
- > Automated migration to the target platform
- > Continue using 2E environment which is highly productive
- > In control of the generated code
- > Resell or collaboration

Con's

- > Time to research and build, therefore, costly.
- > Plex port can help with same outcome
- > Maintenance of the generator
- > .NET/Java expertise
- > Is it core to your business

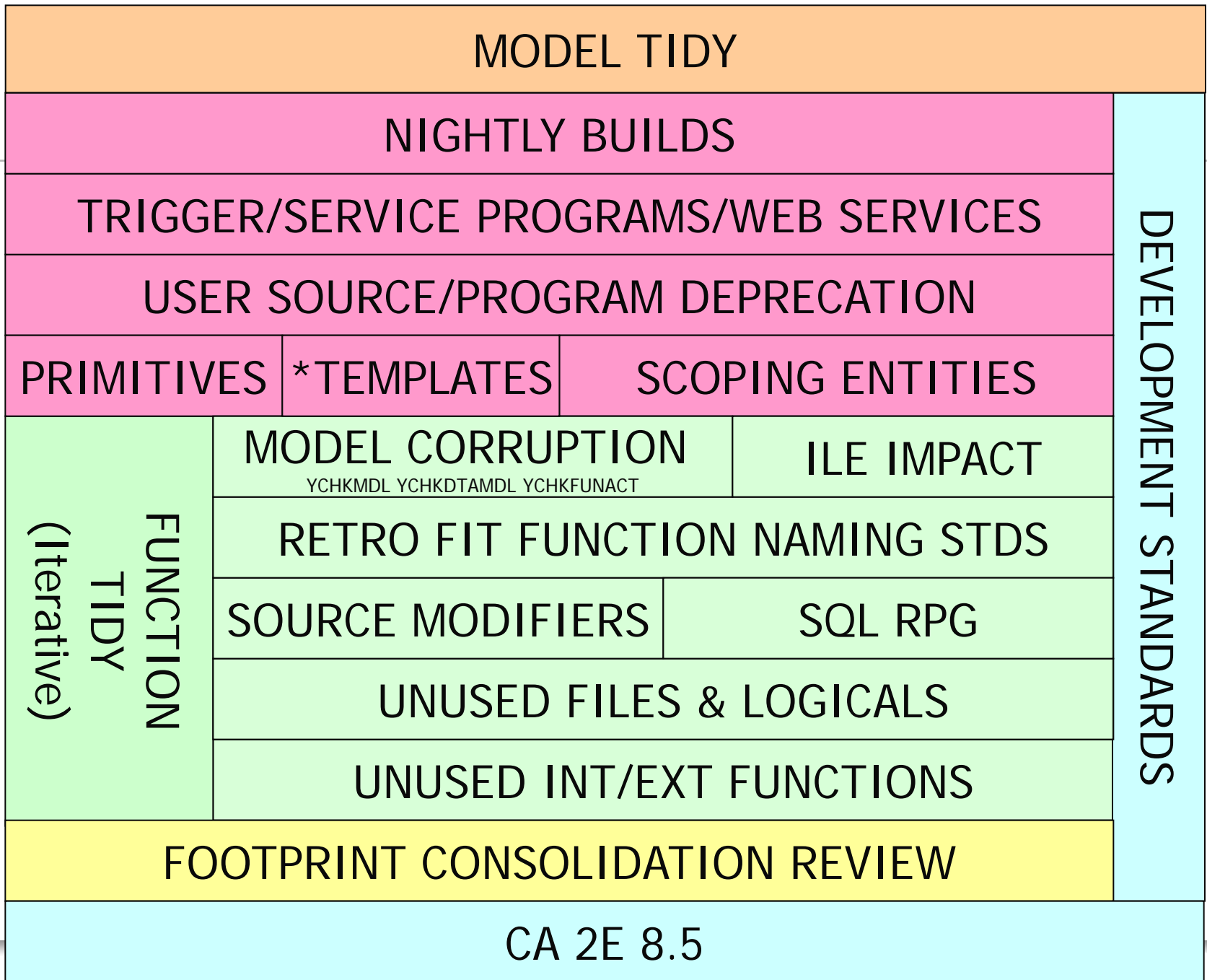
Stop – Wait – Think !!

“What can I do now even if I haven’t got a strategy in place.”

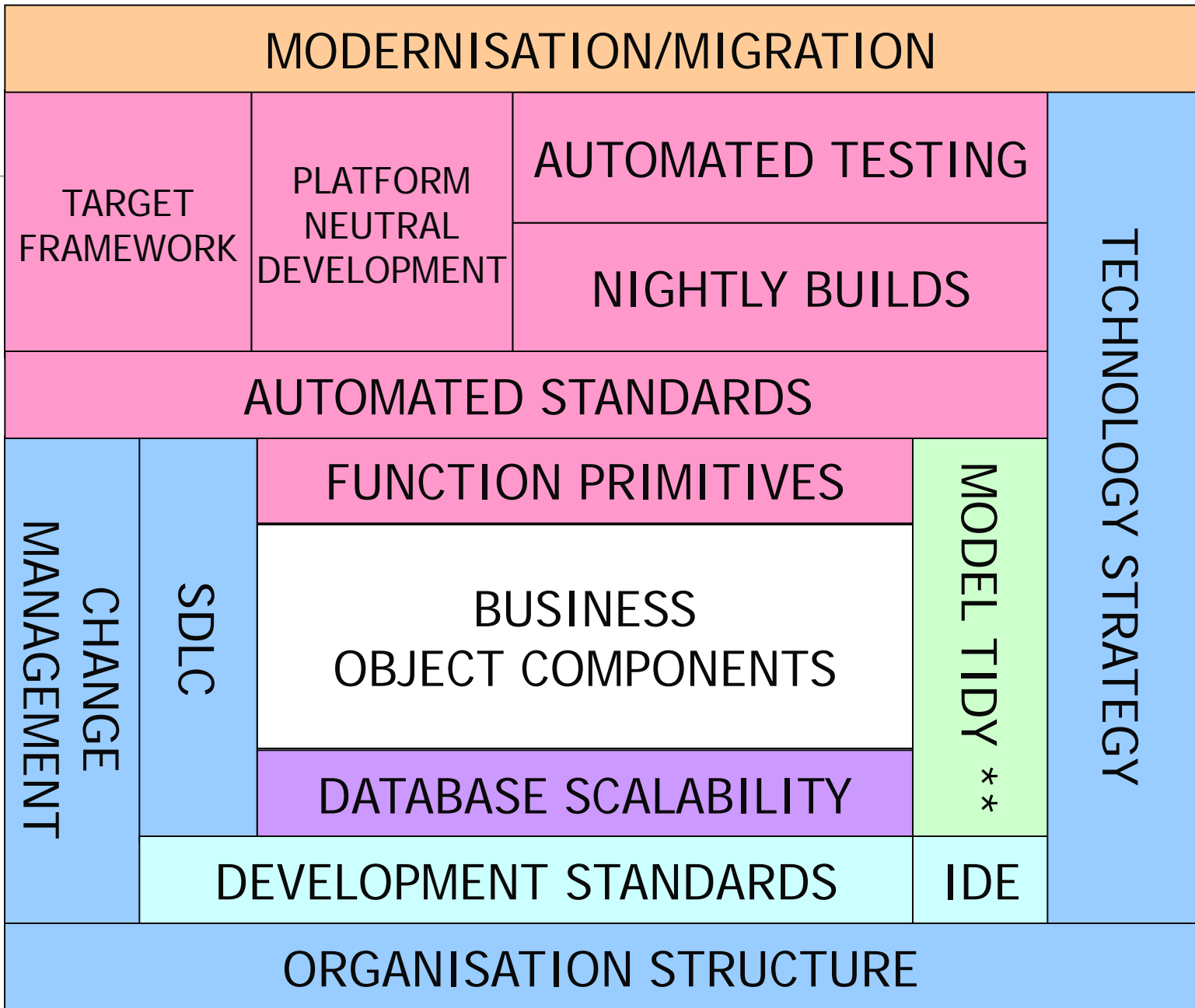
> Review current model

- Easier to port/migrate a clean application model
- Easier to 'Fix Up' issues in current model
- Rebuild entire application
 - Files, access paths and all functions

Tidy up your models FIRST!



What could be the steps for a potential migration project?



Team Structure

- > Centralised development ownership
 - Design, development & quality assurance
- > Technology agnostic
- > Portability and scalability (Project Teams)
 - Reusable building blocks (Lego)
 - Create and deprecate as priorities/projects dictate
 - Remote development teams
- > Business solutions focused
- > Organisation role awareness/appreciation

Hybrid Developers (You need these)

- > 2E experts are your business experts now
- > New technology expert
 - Framework, technical patterns and standards
 - Watch out for tail wagging the dog
- > Identify appropriate developers (early adopters)
 - Technical and conceptual differences
 - Accept, then manage the resistance to change
 - Avoid technology focused teams
 - Unnecessary jealousy and division. Extra Process/Management required.
 - Business expertise v technology

Customer Impact

- > Some customers don't want a GUI or B2B transactions
 - Education and awareness. Sow the seeds early
 - Familiarity and trust with existing system
 - Hardware costs
- > Some may view as opportunity to review competitors offerings
 - Ensure your solution and roadmap has everything required to compete

Internal Impact

> Supporting a distributed platform

- Staff training (Product/Operations/Support)
- Issue tracking. Simplifying screen issues

> Platform independent testing/compatibility

- Balancing, load and functional testing
- More benchmarking
- Exposure to newer exciting tools and utilities

> New technologies/databases.

- DDL/DDS or CHAIN/SELECT
- Target environment DBA's & environment management

**Can you imagine how the
internet would look
without GUI
modernisation?**

Final Thought!

Web [Images](#) [Maps](#) [News](#) [Groups](#) [Gmail](#) [more](#)

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New Zealand



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