INT-Clean Up Your Application -Modernizing Character Code for SOAP, SaaS and Beyond

Steve Lichtenberg

Agenda

➤ A New way of thinking about your business
➤ Advantages of modernized code
➤ Code Separation
➤ Challenges to refactoring
➤ Tools
➤ Web Services
➤ Software as a Service
➤ Case Study
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A New Way of Thinking About Your Business

- Add new revenue streams
- Expand operations outside “normal” channels
- Extend functionality
- Processes not Procedures

A New Way of Thinking About your Business

- AppServer™ is the key
- Use the tools available
  - OpenEdge® Architect
  - ProParse
  - ProRefactor
- Goal – Total UI independence
  - Don’t know how users will access systems

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I don’t have time to make these changes….

Spending the time now will result in greater opportunities to increase revenue later!
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Advantages of Modern Code
- Easier to Maintain
  - All business logic is encapsulated
  - Each piece of logic occurs in one place
  - Eliminate “Spaghetti”
- Code becomes “plug and play”
  - Change UI elements as required
- Code becomes responsive to business needs

Advantages of Modern Code - Goals
- Refactor to make code more readable
- Do not change functionality
  - Readability
  - Re-use
  - Organization
- Changes are not as hard as thought
- Does take time though

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Code Separation

- UI vs Business logic
- Encapsulate logic near database
- Field level validations
  - UI based?
  - Back end based?
- Temp-tables/ProDataSets

Code Separation - UI

- Editing blocks become triggers
- Choose statements become buttons
- No database access
  - Code must compile without db connection
- Temp-tables contain all data
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Code Separation – UI

- Define temp-tables on server
- Pass table-handles between client and server
  - Tables are defined once
  - Dictionary changes can be reflected without breaking existing clients

UI Independence

- If properly partitioned, UI doesn’t matter
- Validation needs to happen on server
- Allows processing when the end user is a remote process

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Refactoring Challenges

- Often immediate business needs appear to outweigh the long term options
- Can be time consuming
- Learning curve for newer techniques can be steep

Refactoring Challenges - Mitigating

- Re-evaluate code every time you make functional changes
- Continually question techniques to use the most beneficial ones
- Keep the long term goal in mind
- Continually learn new functionality and use it 
  Where it makes sense

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Code Separation Refactoring Tools

- OpenEdge Architect
- ProParse
- ProLint
- ProRefactor

So, what have we accomplished?

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Web Services And SaaS

- Rethink Your Business
- Web services allow for a different view into data
- Allows for increased revenue streams
- Communicate easily with third party applications
- Look outside for new business partners
Rethink Your Business

Web Services and SaaS

- Web services allow for a different view into data
- Allows for increased revenue streams
- Communicate easily with third party applications
- Look outside for new business partners
- Producer or Consumer

Use SAX parser
ProxyGen to create wsdl
Need Tomcat to communicate with Web Server
Consider using WebSpeed® Transaction Server

WebServices

- Expands into SaaS
- Process is independent of UI
- Can aggregate data from other services
- New uses will develop naturally
SaaS

- New business and revenue model
- Steady revenue stream
  - Per transaction
  - Per potential user
- Open application outside the enterprise

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Case Study

Case Study

Business Overview

- Progress AP for over 15 years
- About 300 client companies
- Property management software
- $1-2 million/year in new sales
- Traditional client/server GUI application
- Character application still in use at some clients
- Already AppServer aware
Case Study

Business Requirement

- Integrate directly with third party web hosts
- Allow for rapidly adding new clients
- Use existing code where possible
- Use Either HTML or SOAP interfaces
- Readily modifiable and expandable

Case Study

Integration solution

- Single entry point from third parties to all clients
- All outputs generate XML document
- HTML outputs include XSLT style sheet
- Create a lookup database for connecting to remote AppServers
- Client opens AppServer port to central server

Case Study

Advantages

- Clients customers can access data relevant to them
- Eliminates interruptions of office staff
- Person with vested interest in correct information has control
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Additional Information

- See PSDN for code examples
- Progressions Article Issue 66 November 2006
- http://www.slichten.com/progress
- Progress e-mail group (PEG)
  http://www.peg.com/jointoday.html

Questions