Agenda

• Common migration issues for 4GLs
• Speedware migrations
• Powerhouse migrations
• Transact migrations
• Conclusion
Common migration issues for 4GLs
Overall assessment

- Speedware is highly portable to other platforms including HP-UX and Windows
- PowerHouse is highly portable to other platforms including HP-UX and Windows
- A solution for Transact is available from Speedware
Common migration issues for 4GLs

- Supported databases
- Interfacing with 3GLs
- Interface with external technologies
- Interacting with utilities
- What replaces Omnidex/Superdex/TPI
- Interfacing with packaged applications
Speedware migrations
Migrating Speedware applications

• Every Speedware development toolset offers cross-platform and database portability as one of its core features.

• Most applications built with Speedware V7 technology can be easily ported to any other supported platform without modifying the code at all.

• Operating System Switches permit developers to write OS-specific code in applications designed for multiple platform deployment facilitating gradual migrations.
Database migrations

• Databases can be easily ported through the Speedware development environments.
  – Database layers are abstracted away from the code permitting application to be database portable
  – Speedware’s development tools are able to reconstruct identical database structure in other database types

• The database porting process is relatively simple
Migrating Speedware applications

- Platform/database grid
  - HP e3000 MPE/iX
    - Image, Image with Omnidex or Superdex, Allbase, Oracle (V7), KSAM, KSAM-XL, Flat (and others)
  - HP 9000 HP-UX
    - Oracle, Sybase, Informix, Allbase, Eloquence, DISAM (for indexed files) flat, Netbase (Image, KSAM etc.)
  - IBM RS6000 AIX
    - Oracle, Sybase, Informix, DB2, DISAM (for indexed files) flat, Netbase (Image, KSAM etc.)
Migrating Speedware applications

- Platform/database grid
  - Windows XP/2000/NT/ME/98
    - SQL Server, Oracle, Sybase, Informix, Eloquence, DB2, DISAM (for indexed files) Flat, Netbase (Image, KSAM, etc.) ODBC (for all other choices)
  - Sun Solaris
    - Oracle, Sybase, Informix, DISAM (for indexed files), flat, Netbase (Image, KSAM, etc.)
Migrating Speedware applications

• Product portability grid
  – Speedware Autobahn
    • HP e3000, HP 9000 HP-UX, Windows XP, 2000, NT, ME, 9x, Sun Solaris (CGI only), Linux (CGI only)
  – Visual Speedware
    • HP e3000, HP 9000 HP-UX, Windows XP, 2000, NT, ME, 9x
Speedware migration process

• Design
  – Binary FTP to target system
  – Open with Designer
  – Change file locations (paths) and database location

• Database
  – Using Speedware development tools
  – DBmotion
  – OpenTURBO (Imaxsoft)
  – Bridgeware (Quest/Taurus)

• Applications
  – Generate applications from Designer
Speedware migration issues

- Batch sections and command statements
- Calls to 3GL applications
  - Migration of 3GL XLS to shared library routines
- Database porting
  - Differences
  - Database porting (gradual, incremental, mirroring)
  - Omnidex / Superdex
  - Optimization (Data views)
Enhancing the user interface

- Speedware Autobahn can be used to build new dynamic web applications
- Existing Speedware/4GL applications can be quickly migrated to Visual Speedware, instantly giving them a Visual Basic front-end
SpeedWeb

- Web-enablement for Classic Speedware applications
  - Java/Web
  - Instant Web-enablement
  - Add additional graphical controls to existing applications with ease
PowerHouse migrations
PowerHouse migration options

• Port PowerHouse applications
  – Using Axiant
  – To PowerHouse on target platform
  – To PowerHouse Web

• Platform options
  – UNIX, OpenVMS, Windows NT/2000/XP

• New database option
  – Eloquence
Migrating PowerHouse applications

- Platform/database grid
  - HP e3000
    - Image (with Omnidex or Superdex), Allbase, KSAM or KSAM-XL, MPE
  - HP 9000 HP-UX
    - Oracle, DB2, Sybase, Allbase, CISAM, Eloquence
  - IBM RS6000 AIX
    - Oracle, DB2, Sybase, CISAM
Migrating PowerHouse applications

• Platform/database grid
  – Windows NT/2000/XP
    • SQL Server, Oracle, DB2, Sybase, DISAM, Eloquence, ODBC (for all others)
  – Sun Solaris
    • Oracle, DB2, Sybase, CISAM
  – Tru-64 UNIX
    • Oracle, Sybase, CISAM
Migrating PowerHouse applications

• Platform/database grid
  – Open VMS Alpha
    • Oracle RDB, Oracle, RMS
  – IBM OS/400
    • DDS, OS/400 DB2
Migrating PowerHouse applications

• Product portability grid
  – PowerHouse
    • HP e3000, HP 9000, IBM RS6000 AIX, Sun Solaris, Tru64 UNIX, Windows NT/2000/XP, Open VMS Alpha
  – Axiant Development
    • Windows 98/ME/NT/2000/XP
  – Axiant Deployment
    • HP e3000, HP 9000, IBM RS6000-IX, Sun Solaris, Tru64 UNIX, Windows NT/2000/XP, OpenVMS Alpha
Migrating PowerHouse applications

- Product Portability Grid
  - PowerHouse Web
    - HP e3000, HP 9000, IBM RS6000 AIX, Sun Solaris, Tru64UNIX, Windows NT/2000/XP, OpenVMS Alpha
PowerHouse migration tools

• Axiant 4GL
  – Helps you migrate your applications
  – GUI Development environment
  – Multi-environment deployment
    • Fat Client (Database on the LAN)
    • Mobile (Everything on the PC)
    • Web
    • Terminal
    • Thin Client
  – Imports From
    • PowerHouse dictionary
    • Relational metadata
    • QUIZ, QTP, and QUICK source code
PowerHouse migration process

• On MPE
  – Collect source files (PDL, QK, QZ, QTP) to move
  – Save the data in portable subfiles, using QTP
  – Transfer the source code to Windows
  – Transfer the subfiles to the target machine

• Use Axiant’s migration tools to:
  – Create a migration profile:
    • for example MPE/Image to Oracle/UNIX
  – Import the PDL and generate the database
  – Import the programs, converting to PH UNIX/relational
PowerHouse migration process

To bring your application from Axiant to UNIX:

- Generate the target PDL and SQL
- Compile the programs on the desktop
- Use FTP to transfer the PDL, SQL and source files to UNIX
PowerHouse migration process

To assemble the application on UNIX:

• Create database from SQL
• Create dictionary from PDL source file
• Create indexed and sequential files
• Load subfiles into database and files
• Modify to match the data changes, then test
• Make the application relational
• Translate any MPE command scripts and test
PowerHouse migration issues

• Eloquence requires no code changes
• Relational Databases differences
• KSAM to CISAM
• Relative to Direct, Sequential or Indexed
• UDCs need to be converted to scripts
• Batch Sections and Command Statements
• Calls to 3GL Applications
• Database porting
PowerHouse Web

- Build dynamic data driven Web applications.
- Eliminate traditional client/server overhead using Web browsers.
- Extends the reach of your enterprise
  - provide improved customer service,
  - additional sales channels,
  - alternate communication channels to customers and suppliers.
Transact migrations
Transact situation

- Transact (RAPID 3000)
  - 4GL created by HP for the HP e3000 platform only
- 400 supported customers worldwide (HP estimates)
  - Estimated total of 1000 customers
- Significant number looking for future path
- Transact does not exist on other platforms
Transact migrations to Speedware V7

- Outsourced-type solution

- Benefits of Speedware’s migration solution
  - Similar language and concepts
  - Platform and Database Portability
  - User interface enhancement options
  - Continued development
  - Can be guaranteed at a fixed bid
Transact migration process

• Send the Transact environment to Speedware
• Speedware converts Transact to Speedware V7 using its automated tools and professional services
• Test the application and address any migration issues
• Once fully tested on MPE, Speedware follows its Migration Process to migrate off the HP e3000 platform
Transact migrations to COBOL

- Consists of combination of T2C solution (Screenjet Ltd) and AMXW (Speedware)

- **T2C**
  - Converts Transact to HP COBOL using Richter software
  - Runtime uses T2C libraries to resolve the intrinsics

- **AMXW platform migration solution**
  - Migrates the HP COBOL application to another platform

- Currently being developed by Screenjet Ltd. and tested by Speedware with AMXW
Conclusion
Conclusion

- Speedware and Cognos 4GLs are well supported with many porting options
- Speedware offers a path for TRANSACT to Speedware V7 or COBOL
- PROTOS and CBAS have harder paths
- Because of their high level nature, 4GLs migrate more easily to new platforms; because they are built on a layer above the OS/and 3GLs
- Database and data issues will loom the largest in 4GL ports
Thank you