



# Migration case studies



Speaker name

Title

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# Northern California Cancer Center (NCCC)



# Business overview

- Nonprofit cancer research and information center
- Dedicated to understanding the causes, prevention and detection of cancer and to improving the quality of life for individuals living with cancer.
- Collaborates with scientists, educators, patients, clinicians, community leaders, and other individuals from many organizations and community groups
- Based in Union City, California
- Website: [www.nccc.org](http://www.nccc.org)



# Pre-migration IT environment

- Platforms: HP e3000 and Windows NT
- Applications (80% Speedware, 15% COBOL, 5% other)
- Third-party utilities (various)
- Database management systems
  - TurboIMAGE, KSAM, flat-files, MS Access
  - Datanow, Suprtool
- Personnel resources
  - 1 DBA
  - 2 Speedware/COBOL programmers



# Migration challenges

- To migrate NCCC's mission-critical cancer information application written in Speedware from the HP e3000 to Windows
  - Without disrupting critical operations
  - By outsourcing complete project ownership as NCCC's technical resources are scarce
- To port TurboIMAGE and KSAM databases to MS SQL Server

## Solutions considered

- Re-writing of mission-critical Speedware application to an alternative language (such as VB) was briefly considered but quickly discounted as an option
  - Company felt that their custom-built application met their needs better than any other option
- Migration to Windows environment was only option considered, as NCCC believed Windows to be the most cost-effective and flexible solution



# Adopted solution

- Migration of character-based Speedware application to Visual Speedware on the Windows platform
  - Phase 1: “Compatibility mode” chosen to reduce changes
  - Phase 2: Enhancement of the applications by using more graphical controls
- Migration to Windows environment as per original plan

# Benefits enjoyed by NCCC

- End-users benefited from a powerful, user-friendly graphical application interface (Microsoft VB front-end)
- Simplified and reduced data entry time with integrated screens
- Ensured data validation and integrity through graphical controls
- Saved valuable time and money by salvaging the application code and preserving core processes, maximizing initial investments
- Maintained data security
- Access to strong pool of affordable migration expertise by undertaking migration project early



# Lessons learned

- Obtain support from management and end-users alike from the start is very important to maximize project success
- Extensive application testing prior to deployment is key to identify all potential problems before the actual migration
- When working with consultants, it is important to understand all deliverables included in the “scope-of-work”
- In-house expertise with the new platform is key. Even if an application migration runs very smoothly, issues can arise from working in an unfamiliar environment.



“Entrusting the entire project to Speedware is the best thing we could have done. It would have otherwise been absolutely impossible to meet our objectives and still manage day-to-day business.”

Frannie Casella

Manager of Registry Information Systems, NCCC





# Resources

- Project outsourced completely to Speedware's professional services team
  - NCCC reviewed results along the way to refine content
- Budget  $\approx$  \$500,000



# Results

- Deadline of moving off the HP e3000 platform met
- Main portion of key application up and running, with its graphical user interface greatly enhanced
- Integration issues still remain with some components





## Next steps

- Continued enhancements to graphical interface of new Visual Speedware applications
- Addition of Windows-based data reporting tool
- Migration of secondary COBOL applications from the HP e3000



# Hitachi High Technologies America



# Business overview

- Offers semiconductor manufacturing equipment, analytical instrumentation, scientific instruments, bio-related products, industrial equipment, information equipment, electronic devices, and electronic and industrial materials
- San Jose, CA
- [www.hitachi-hta.com](http://www.hitachi-hta.com)



# Characteristics of IT environment

- Key mission-critical manufacturing application (ManMan) running on the HP e3000 has been migrated to SAP as per company-wide strategy
- Historical data still being expensively maintained on HP e3000 server





# Migration challenges

- To find a cost-effective solution to migrate historical data stored in TurboIMAGE databases and KSAM files off the HP e3000 platform



# Solution

- Porting of TurboIMAGE and KSAM databases to SQL Server on Windows using Speedware's DBmotion solution



# Benefits enjoyed by Hitachi

- Reduced cost of maintaining historical data
- Seamless integration and access to company-wide data
- Access to a wide variety of reporting tools on Windows platform



# Lessons learned

- Maintaining historical data does not need to be expensive
- Database migration can be very simple and cost-effective
- Major data warehouse project not necessary



# Resources

- Company performed this project on its own, using tools from Speedware
- Only 1 technical resource was dedicated to this project on a part-time basis
- Minimal expense necessary



# Results

- Hitachi is pleased with how easily and inexpensively its historical data was ported and is being maintained



“ DBmotion made the process of moving historical data from the expensive HP e3000 to a less expensive and more manageable environment very simple. The software is very easy to use and I would rate Speedware’s technical support group extremely high.”

Mike Janjigian

MIS Manager, Hitachi High Technologies America





## Next steps

- To investigate and adopt the most suitable data reporting solution from the wealth of tools available for the Windows platform





# City of Pomona



# Business overview

- One of Southern California's major cities
- Its information systems department manages mission-critical systems
- [www.ci.pomona.ca.us](http://www.ci.pomona.ca.us)



# Characteristics of IT environment

- >100 users rely on the city's systems
- 20 key applications written in Speedware with secondary COBOL applications
- Crystal reports used for form creation
- Reflection scripts used to run reports from Crystal
- Omnidex



# Migration challenges

- Migrate 20 key applications from the HP e3000 to the Windows platform by October 1, 2003 (aggressive City-imposed deadline)
- Eliminate Omnidex by replacing functionality with SQL Server scripts



# Solution

- Applications ported to Windows platform (central back-end deployment)
- Enhancements to the graphical user interface of the applications using SpeedWeb
- Databases migrated using manual scripts (somewhat convoluted)
  - No more funds to buy automated migration tools
- External access to Crystal reports via Reflection replaced with SpeedWeb integration to Crystal for the Web



## Benefits enjoyed by the City

- The robustness of a centrally-managed Windows application that offers a rich, web-enabled GUI
- Application migration with SpeedWeb allowed the city to salvage its application code, maximizing its initial investments (Legacy applications with a facelift)

# Lessons learned

- It pays to spend time evaluating all aspects of the project before finalizing the budget
  - User Interface
  - Interface to external routines/programs
  - Tools and migration methods
- Support from Platinum Partner throughout the project is key
- ACUCOBOL limitations caused problems
  - Cannot move code to DLLs/shared libraries
  - Work-arounds had to be invented to support functionality



# Results

- Only 2 full-time programmers required
- Extensive support from Platinum Partner used
- The City expects to have completed the migration of all 20 applications and related SQL scripts by October 1
- Cost reductions—No longer dependent on Omnidex (elimination of related license and support fees)





## Next steps

- Further enhancement of the visual interface of the city's applications, including the addition of hyperlinks and GUI controls



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