End the Microsoft Access Chaos - Your simplified path to Oracle Application Express

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Agenda

• Why Migrate from Microsoft Access?
• What is Oracle Application Express?
• Application Migration Workshop
• How to Migrate – Your 7 step process
• Demonstration
• Conclusion
• Next steps
• Q&A
Why Migrate from Microsoft Access?

- Fragmented
  - Data in isolated islands of information
  - Consolidation
- Platform Dependent
  - MS Windows Only
- Not Scalable
  - After 250k rows or so, it just doesn’t work
- Web Unfriendly
  - Need to install & manage client software
- Not Secure
  - Simple to gain full access to data & UI
Secure?

- About $15
- Many variations
- If your data is worth less than $15, MS Access is a good place to store it
Access Limitations

• Microsoft Access is not intended as an inherently reliable solution for several reasons:
  • Database Corruption
  • Backup and Maintenance
  • Different Versions of Access and Jet
  • Security

http://www.microsoft.com/sql/solutions/migration/access/whenmigrate.mspx
What is Oracle Application Express?

• Tool to build Database-Centric web applications.
• Simplicity of a desktop DB with the full power and reliability of Oracle
• Declarative
• Browser Based
• Multi-Tenant Hosting
• MS Access Replacement
Application Migration Workshop

Design Goals

• Database Refactoring
  • The better the Data Model, the easier it will be to create good Oracle APEX applications
  • Identify tables without Primary Keys, Foreign Keys, UI Defaults.

• Design Recovery
  • Provide detailed information about the original Access Application
  • Workshop approach allows developer to define scope and fix any objects identified as invalid resulting in increased automatic conversion %

• Native Oracle APEX Applications
  • No emulation of unique Access functionality
  • Leverages the Application Model behind the Create Application Wizard
Application Migration Workshop

- Standard feature of 3.0
- View of all Access application metadata
- Identify tables without Primary keys or UI Defaults
- Identify and Fix Invalid Access Queries (Oracle Views)
- Validate SQL associated with Access Reports
- Generate Two types of Applications
  - Application – Based on Forms / Reports
  - Maintenance – Based on Tables / Views
Migration Map
How to Migrate – Your 7 step Process

1. Export MS Access Metadata
2. Migrate MS Access database to Oracle
3. Create an Oracle APEX Workspace
4. Create a Migration project
5. Analyze Access Application
6. Generate Oracle APEX Application
7. Customize your Oracle APEX application
1. Export MS Access Metadata

- Run the new Exporter Tool for Microsoft Access to generate the following files
  - XML file that describes schema for OMWB
  - SQL file that contains all Metadata for Application Migration Workshop
- Load the resulting XML file into the Migration Workbench
2. Migrate MS Access Database to Oracle

- Use the Oracle Migration Workbench
- If you need to change the data model:
  - Migrate ALL of the tables to Oracle
  - Make changes via Oracle APEX SQL Workshop or SQL Developer
- Some things to look out for:
  - The Oracle Schema which the Migration Workbench creates will be named after the .MDB file
  - You will need DBA Privileges in order to run the Migration Workbench
Oracle Migration Workbench

- Oracle Migration Workbench 10.1.0.4.0
  - Improved Microsoft Access Support
    - Added support for 2002 (XP) & 2003
    - Multiple mdb file migration
    - 4 types of Access queries migrated to views
    - Native support for 80% of Access functions
    - Multi-byte improvements
- New Migration Workbench (CY 2007)
  - Integrated with Oracle SQL Developer
  - Support for Access in initial release
- ~30% of OMWB downloads is for MS Access
  - Over 50,000 downloads since 2001
3. Create an Oracle APEX Workspace

- Using the Administrative interface of Oracle APEX to create a Workspace and associate your newly migrated Schema with it.
4. Create a migration project

- From the Application Migration Workshop create a Migration project and load the .sql file created previously by the Exporter Tool for Microsoft Access.
5. Analyze Access Application

- Database Design
  - Good database design is fundamental to a good application
    - Many MS Access Applications are written by people who don’t know a lot about data modeling
    - Normalize data where appropriate
  - Tables without Primary Keys
  - Add UI Defaults
  - Fix any invalid views created by OMWB

- Application Design
  - Many constructs of MS Access do not translate to the web
  - There is not necessarily a 1-to-1 relationship between an MS Access form and an HTML DB Form
  - HTML DB Reports can replace several MS Access Reports
  - Forms built in MS Access to manage LOVs can be managed as LOVs natively in HTML DB
6. Generate Oracle APEX Application

- Create Application
  - Based on Access Forms & Reports
- Create Maintenance Application
  - Based on Tables & Views (Access Queries)

- When Creating your Application:
- Decide on your Navigation Style
  - Simple List or Icons for Menu
- Choose your User interface (theme)
- Oracle Apex Authentication by default
7. Customize your APEX Application

- Add additional regions to existing pages
- Add new pages
- Review Authentication method
- Review opportunities to create List of Values and update existing forms to take advantage of them.
DEMONSTRATION

Application Migration Workshop
Conclusion

- Improved migration capability for Microsoft Access application migrations
- Business Drivers
  - Consolidation
  - Increase data security
- Methodology
  - It’s all about the data model!
  - A little planning will go a long way
  - There is more than one way to migrate an application – keep the client involved so as to not build something they will not want/like
Next Steps

- More information and downloads
  - http://otn.oracle.com/apex
- Oracle Application Express 2-Day Developer tutorial book
  - http://otn.oracle.com/apex
- Download Packaged & Sample applications
  - http://otn.oracle.com/apex
  - http://apex.oracle.com/studio
For More Information

http://search.oracle.com

Application Express

or

http://otn.oracle.com/apex