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Introducing WebUtil - Making Oracle Forms Upgrade to the Web Easier and Much More

Now is the time to Web deploy Your Oracle Forms Applications

- Mature and improved technology
- Extensive experience gathered
- Proven customer success
- Oracle9i Forms with new features
 - Only on the Web
- C/S support ends 1/2005, 1/2008

The Problem: Client Integration

- Forms → O/S Integration can be a problem



Integration Points

Cross-Platform

- HOST
- TEXT_IO
- TOOL_ENV
- ORA_FFI
- User Exits

Windows Only

- OLE2
- FORMS_OLE
- DDE
- D2KWUTIL

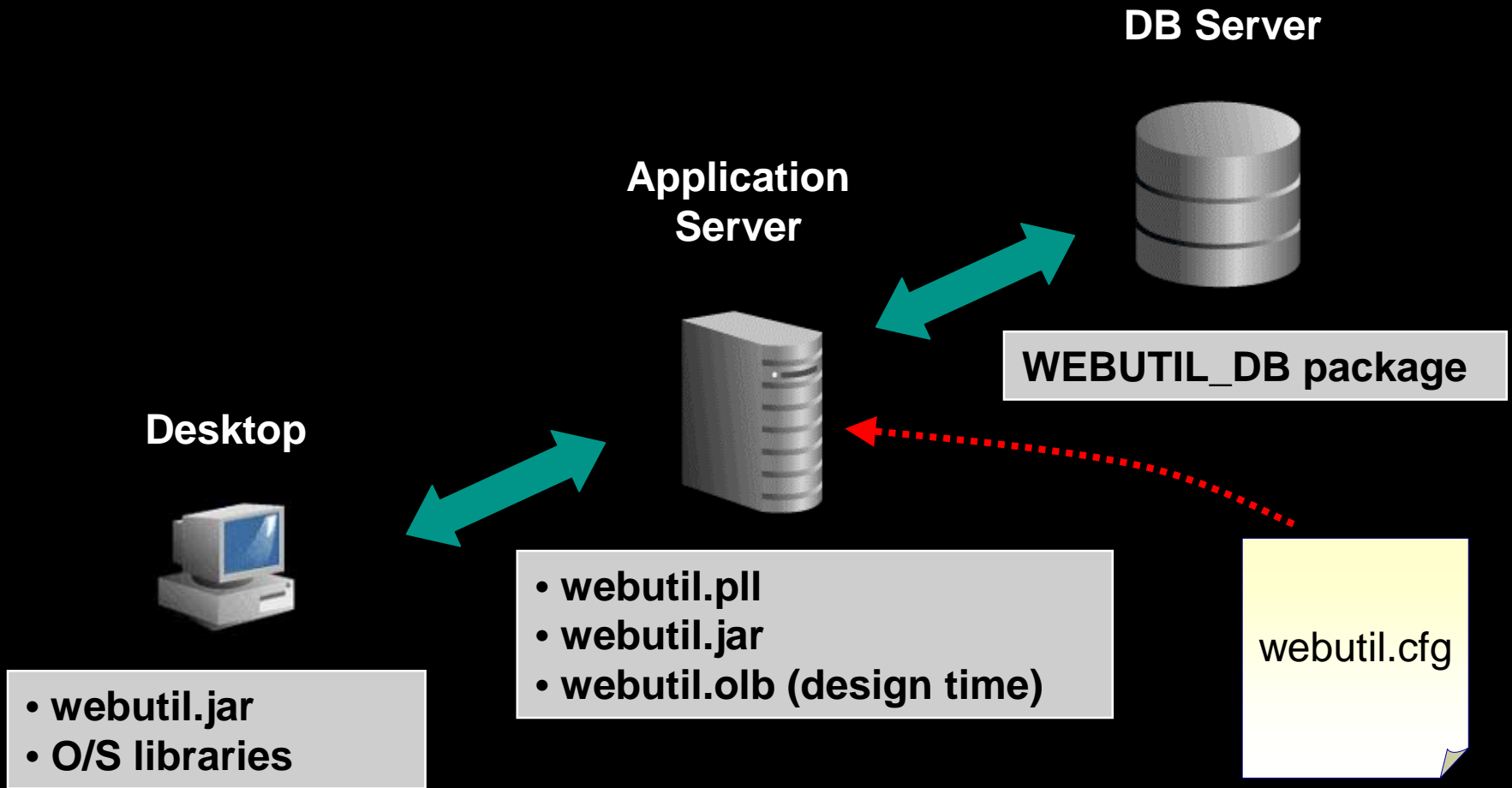
The Solution : WebUtil

- A set of Java components and a PL/SQL API
- WebUtil mission:
 - Help client/server to Web migration
 - Add capabilities to Web applications
- Aims to address the following:
 - Basic client/server function parity
 - Client/server value-add functions – e.g. D2KWUtil
 - Specific Web features – e.g. file transfer

Wish List for WebUtil

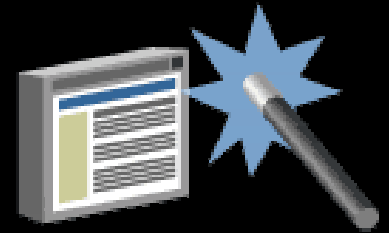
- Self installing
- Client/server parity should be cheap to consume
- WebUtil is a “value add” not a Band-Aid
- Maintainable & scalable
- Extensible

WebUtil Components



Client Server Parity on the Web

- Client side implementations of:
 - TEXT_IO
 - TOOL_ENV
 - GET_FILE_NAME
 - HOST
 - OLE2
 - READ / WRITE_IMAGE_FILE
- Compatible APIs to expose operation on the client
 - Just a prefix to be added e.g. "CLIENT_..."
 - Including exceptions / errors
- Choice of deploying function to client or app server



Value Added Features

- File transfer
- File manipulation
- Client machine information
- Enhanced HOST commands
- C API on the client
- Some of D2KWUtil features
- Browser functions

File Transfer Between Tiers

- Robust & scalable file transfer
 - Upload and download
 - From / to middle tier file system
 - From / to database (Oracle9i Database only)
 - From URL to client
- Security controls built in
 - Admin controls which functions are available
 - Admin can define readable and writeable areas on app server
 - Not under the control of the programmer!



File Manipulation Functions



- Multi-select file dialog
- Create / delete directory
- List directory contents (optionally filtered)
- Delete / copy / rename file
- File information functions
 - Size
 - Read only etc.

Client Machine Information



- Browser O/S
- Client O/S username
- Client date / time / timezone
- Client IP address / hostname
- Client locale
- Client Java version & other Java system info

Client Host Commands

- CLIENT_HOST
 - Client side implementation of HOST
- 3 ways of execution:
 - Blocking
 - Forms is suspended until command completes
 - Non-Blocking
 - Forms and host run in parallel – "fire and forget"
 - Non-Blocking with Call-back when complete
 - New - run in parallel and notify when done



C API



- Runtime binding C interface
- "Client_" port of ORA_FFI not possible
- Win32 only – Solaris & other O/Ss a possibility
- Array bounds checking on Char* pointers built-in
- Process
 - Load O/S library dynamically
 - “Register” function
 - Create function parameter array
 - Invoke Function
 - Map Pointer values back into OUT variables

PL/SQL → Java → (JNI) → C

D2KWUtil Functions



- Made possible by the C API
- CLIENT_WIN_* packages
 - Only environment & supporting packages have been "ported"
- Registry
 - Read / write / create key / delete Key
- INI
 - Read / write
- Info
 - Get Windows Dir / Get Temp Dir etc.

Browser Functions



- Detect timeout
 - When the server times out (or dies) redirect the browser to a friendly page....
- Browser message
 - Send a message to the browser message line rather than the Forms message line
 - Show hide menu and status bar
 - And more...

WebUtil – Summary

- Simplifies upgrade to the Web
 - Provides client/server parity on the Web
 - Easy code replacement
- Provides added functionality to Oracle Forms
- Simple to develop with
- Simple to deploy
- Extensible

Your Next Steps



- Go to <http://otn.oracle.com/products/forms>
- Download and try out WebUtil
- Learn about other new features

- Forms Upgrade Center –
<http://otn.oracle.com/formsupgrade>
- Everything you need to upgrade Oracle Forms to the Web

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