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# Using Oracle with Windows CE

NYOUG

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**Core Paradigm**

# Agenda

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- The Palmtop and its uses
- Means of development: Oracle
- Means of development: Other
- Design considerations
- Security
- Using Pocket IE to see Oracle data
- Demonsration

# The palmtop and its uses:

## Physical Overview

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- Small/Portable
- Pen based computing (?)
- Many vendors and sizes
- Several Oss/vendor models
  - Newton
  - Palm Pilot
  - Psion
  - Windows CE
    - H/PC
    - Palm PC
  - Where's NC?

# The palmtop and its uses:

## Physical Overview cont.

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- H/PC (Windows CE)
  - Most new units have screen dimensions 640 X 240
  - 4 color gray scale and 256 full color
  - Keyboard and pen
- Palm PC
  - Most new units have screen dimensions 240 X 320
  - Pen computing
  - gray scale

# The palmtop and its uses:

## Physical Overview cont.

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- Newton
  - Screen dimensions: 480 X 320 and 320 X 480
  - Pen computing
- Psion
  - Screen dimensions: 640 X 240
  - Gray scale
  - Keyboard and pen
- Palm Pilot
  - Screen dimensions: 160 X 160
  - Pen computing

# The palmtop and its uses:

## Physical Overview Comparson

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<u>Unit</u>	<u>Dim. WxDxh</u>	<u>Weight</u>
Libretto	8.3 x 5.2 x 1.4	2.4 lb.
HP 600s	7.8 x 4.1 x 1.4	20.6 oz.
HP 300s	7.2 x 3.6 x 1.1	16 oz.
Newton	4.7 x 8.3 x 1.1	1.4 lb.
My Coat Pocket (approximate)		
	6.0 x 5.5 x 1.3	0 lb.

# The Palmtop and its uses: Practical Overview

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- Mobility
  - Connectivity
  - Pocket IE
  - telnet
- Power Tools
  - Pocket Word, Excel, Outlook, Internet Explorer
  - Synchronization
- General Enjoyment
  - Games
  - Books
  - Coolness factor

# Breakdown of Topic Interests

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- People who Like Back-end Stuff

People who like Front-end Stuff

Overlap of people who like both

A Venn diagram with two overlapping circles. The left circle is blue and contains the text '• People who Like Back-end Stuff'. The right circle is yellow and contains the text 'People who like Front-end Stuff'. The overlapping area between the two circles is shaded light orange. A yellow arrow points upwards from the text 'Overlap of people who like both' to the bottom of the orange shaded area.

# The Palmtop and its uses: Database Applications

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- Use against the web
- Download data and use locally
  - Personal Oracle Lite (POLite) for Windows CE
    - Beta for Windows CE, Production for PalmPilot
  - Programming Languages
    - Java
    - C++ Programs
    - VB
  - Retrieve a page with comma delimited data
    - Looking forward to ability to import a .CSV file into Pocket Excel

# Means of development: Oracle: Designer/2000

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- Designer/2000 w/Webserver Generator
  - Provides benefits in terms of project management and team development
  - Provides ability to create and deploy functionally the same application in C/S, webForms, PL/SQL web application
  - Design Capture a forms application into Designer/2000
    - Regenerate application with webserver generator

# Means of development: Oracle: Other

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- Hand code a webserver application
  - Yuck
- WebAlchemy
  - For simple pages
- In combination with Personal Oracle Lite for Windows CE
  - Not yet in production

# Means of development: Other

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- J++ toolkit
  - Use HTTP to access data via OAS
  - Use in conjunction with webserver applications
  - Customized applications
  - Needs a heftier model of Palmtop
- VisualCE

# Pocket IE Design considerations

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- Less is more
- Bigger is better
- Graphics are nice, but:
  - Take up screen real-estate
  - Can be costly if using a cellular modem
- Place buttons (instead of links) at the bottom of the screen
  - links at the bottom of the screen are difficult to activate
- Consider when defining HTML tables
  - percentage vs. static size

# Means of deployment

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- RAS connection
- Direct Ethernet connection
  - untested
- Modem connection
- Cellular modem connection
  - careful about bandwidth costs

# Using Pocket IE to see Oracle data : Handling IP/Virtual Host in the URL

Oracle Web Listener Administration - Netscape

File Edit View Go Communicator Help

Back Forward Reload Home Search Guide Print Security Stop

Bookmarks Location: CONFIGURE&ListenerName=www&ServerRoot=C:\ORANT\ovs\admin\ovs\WEBSITE30/httpd\_coltrane/www/config/

Instant Message Internet Lookup New&Cool

## Oracle Web Listener Administration

Network

- The **Certificate Label** field is the label pointing to certificate files in the [Security] section. There can be only one certificate label per port. This should be left blank if 'NORM' is selected under Security.

Proxy	Address	Port	Security	Host Name	Base Directory	Log Info I
OFF	ANY	80	NORM	coltrane	/	C:\ORAN
ON	ANY	80	NORM	128.251.33.12	/	C:\ORAN
			NORM			
			NORM			

Log File Listener User/Gr Directory Language MIME Encoding Security

Home Admin Database Listener

Powered by Oracle Web

Document: Done

# Using Pocket IE to see Oracle data: Tips and Traps

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- IE security acts oddly when frames are employed
- There's no Java script interpreter (yet)
  - This is a real concern when creating applications with Webserver generator
  - Use 3.0 native transaction mechanism instead of Java script for transactions
- New features of IE in Windows CE 2.0
  - Frames
  - Security (40 bit not 128 bit)

# Security

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- Secure Sockets Layer (SSL) available in Pocket IE
  - SSL2
  - SSL3
  - PCT
- Cookies available
  - Can save up to 50 cookies
  - Each cookie uses 4K of storage
- Authentication in Pocket IE (with OAS?) acts strangely when a page includes frames

# Security cont.

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- Force user to entire username and password
  - Set up protection at listener level
  - In DAD uncheck “Save password in DAD”
- Designer/2000 2.1 Security Preferences
  - Eliminate possibility of user altering URL

# The setup used in this demonstration

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- Oracle 8.0.4
  - Running on 133MHz Pentium, 64M RAM
  - NT 4.0 Workstation
- Oracle Application Server (OAS) v.3.0
- HP 320LX H/PC
  - Running Windows CE 2.0
  - 4M RAM
- RAS connection to OAS over TCP/IP
  - RAS connection via serial cable

# Demonstrations: 1 - OAS

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- PL/SQL web application was created in Designer/2000 with Webserver generator
  - Created by Titus Bocseri
  - Classes and enrollments

# Demonstartions: 2 - Visual CE

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- VisualCE Personal Edition
  - Front-end
    - Provides Form over Windows CE databases
    - Nice Form design utility on the PC
  - Connectivity
    - Provides synchronization from Windows CE databases to Oracle database over ODBC
    - Need to use Intersolve ODBC driver not Oracle provided ODBC driver (for full Level 2 compliance)
  - Traps
    - Must make sure to create Visual CE database with all capital letters

# Demonstartions: 2 - Visual CE cont.

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- Restrictions
  - Only one table per Form in personal edition
  - No table constraints (except for formatting)
- Synchronization
  - Personal Edition
    - One way, two way, none
    - Uses OID column (added in addition to defined columns)
  - Professional edition (above plus)
    - Timestamp with user/interactive collision resolution
    - Comma delimited load and unload

# Windows CE Database / Oracle Designer Tips

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- Can use Generate Server Model to export a table structure to and ODBC database (Windows CE database)
- Can import Windows CE table structure via Design Capture then use Generate Server Model to Oracle

# Demonstration: 3 - Personal Oracle Lite (Beta)

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- Requires 8M RAM
- Replication
  - HTTP Replication
    - Oracle Lite Replication Cartridge for OAS
  - Oracle Replication
    - Configure with Oracle Replication Manager
  - Replication is Snapshot based
    - Updatable and Read-Only
- Languages
  - Visual C++ for CE
  - More to come

# Contact information

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