

accelerate

collaborate

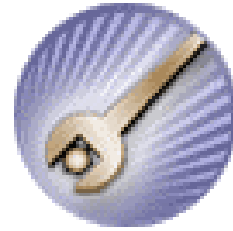
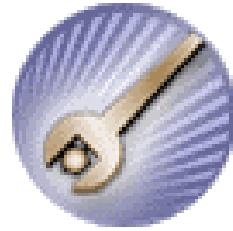
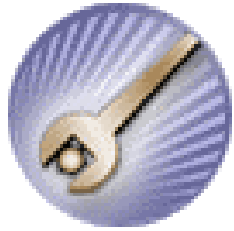


innovate

communicate

PalmSource

Conference 2000



Platform Horizontal Tools

Kamran Khan

Developer Support Engineer
Palm, Inc.

Agenda

- Horizontal tools for Palm OS® application development
 - Application Development Tools
 - Conduit Development Tools
 - Web Clipping Development Tools

Application Development Tools

- Languages available
 - C/C++
 - CodeWarrior, Prc-Tools, Falch.net, VFDIDE, etc.
 - Basic Like
 - Satellite forms, Pendragon forms, NS Basic, etc
 - Java
 - IBM VisualAge Micro Edition
 - Others
 - Smalltalk, Lisp, Assembly, etc.

Application Development Tools

- Handheld Application Development Tools
 - CodeWarrior® for the Palm OS®
 - Prc-Tools
 - Falch.net DeveloperStudio
 - VFDIDE
 - Satellite Forms
 - Pendragon Forms
 - NS Basic
 - CASL
 - HanDBase
 - VisualAge Micro Editon for Palm OS (Java)

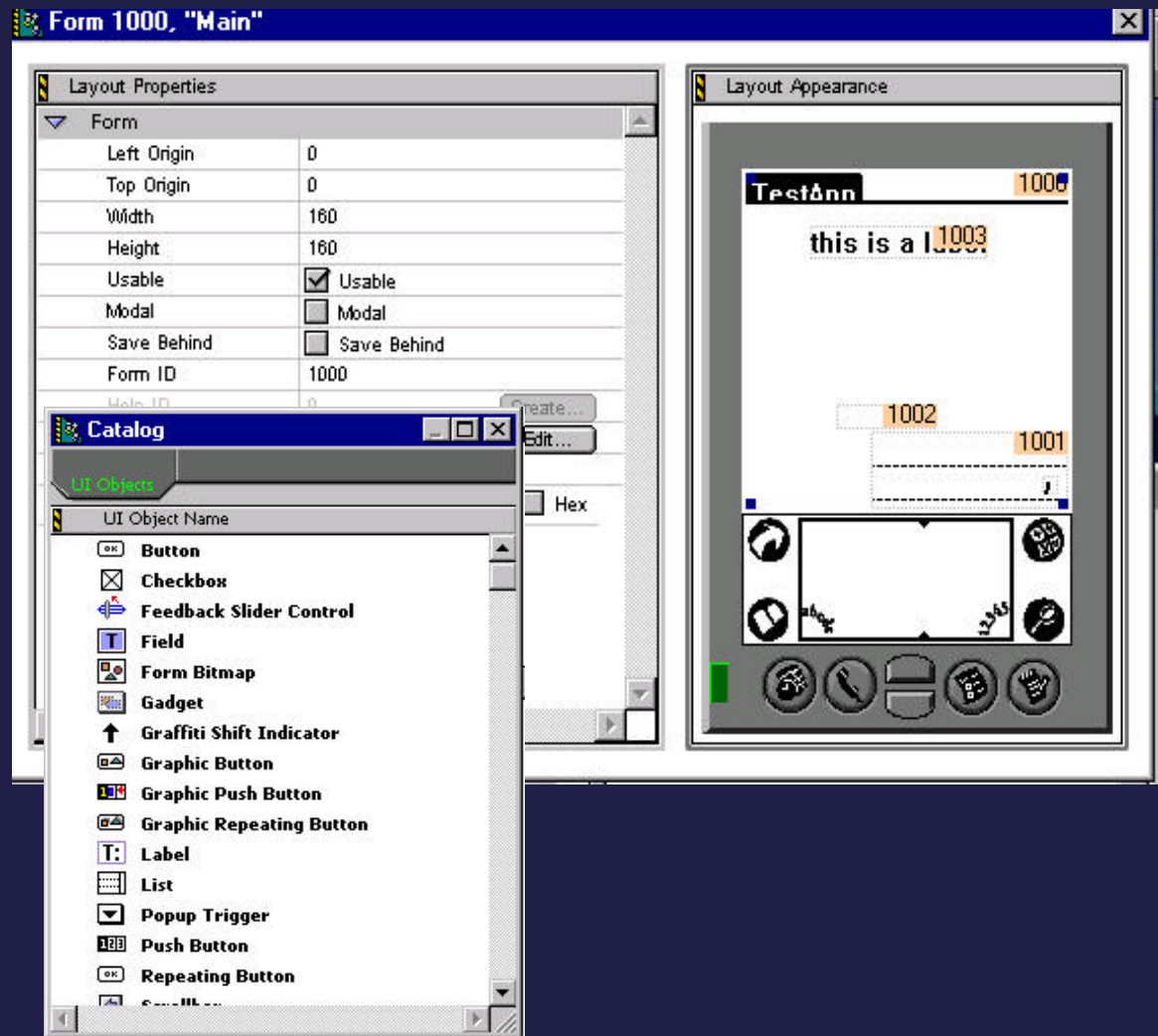
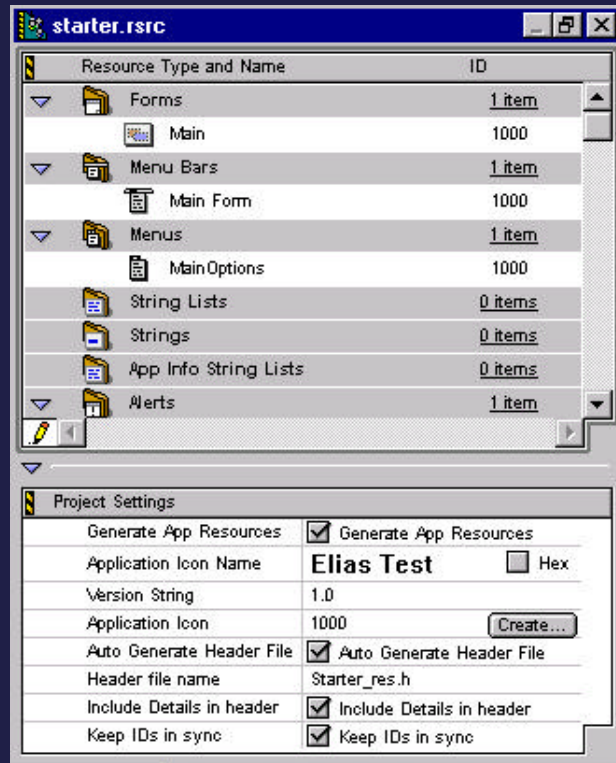
CodeWarrior for the Palm OS

- Integrated Development Environment C/C++
- Tool of choice among the Palm OS developers
- Creating, compiling, linking and debugging all within a single development environment
- Free for non-commercial use
- Cost \$369.00

CodeWarrior® for the Palm OS®

- Features
 - C/C++ compiler
 - Palm OS Emulator (Windows and Mac)
 - Palm OS SDK
 - Constructor for visual design
 - Symbol SPT family Scanner Library
 - CodeWarrior IDE documentation and viewing applications
 - Palm OS documentation and tutorials
 - Project and version control

CodeWarrior for the Palm OS



CodeWarrior for the Palm OS

- Why you want to use CodeWarrior
 - Palm OS API friendly
 - Build-in apps source code
 - Scalability
 - Free for non-commercial use
- <http://www.palmos.com/dev/tech/tools/>

Prc-Tools

- Complete tool chain for building Palm OS application in C or C++ (GCC)
 - GCC compiler, gdb debugger and PilPrc
 - Palm OS SDK and post-linker to produce .prc file
- Prc-Tools source code
- Support for Linux and Windows
- Free Free Free
- <http://www.palmos.com/dev/tech/tools/gcc/>

Falch.net DeveloperStudio

- Integrated Development Environment for C/C++
- Creates simple to most advanced apps
- Use Prc-Tools 2.0
- Free for non-commercial use
- Cost \$149.00

Falch.net DeveloperStudio

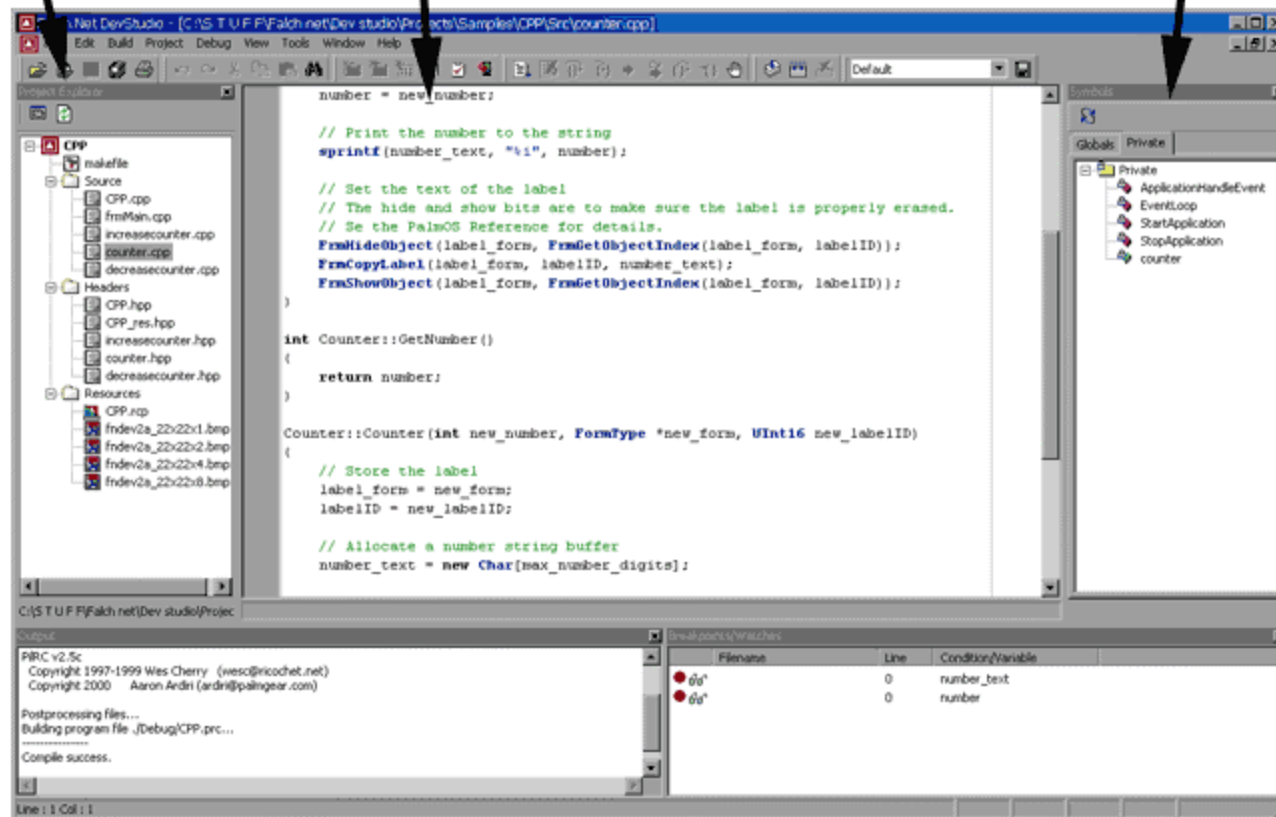
- Features
 - Easy to use text editor with full color syntax highlighting
 - Context sensitive online help
 - Code Wizard and Template support
 - Visual form designer and advanced resource editor
 - Integration with GCC, GDB and Palm™ Emulator (POSE)
 - Single click transfer of executables to the device
 - Open multiple projects in single workspace
 - Support for multiple breakpoints and watches

Falch.net DeveloperStudio

Project Explorer
With customizable folders

Source Editor
Includes syntax highlighting
of Palm OS API keywords

Symbols View
All symbols (functions and variables)
in the current project



Falch.net DeveloperStudio

- Why you want to use DeveloperStudio
 - Scalability from small to large applications
 - Full C/C++ support
 - Visual C++ like
- <http://www.falch.net>

VFDIDE

- Visual Form Designer for C/C++
- Color Support
- Use Prc-Tool 2.0
- Cost \$55

VFDIDE

- Features
 - True WYSIWYG Designer in gray as well as color
 - Integrated syntax highlighting, multi file source code editing
 - Line level debugging with break points, watch points, single step functions
 - Multi segment development
 - Free samples (Database management, communications, and games)

VFDIDE

Pilot VFDIDE (Version 4.1 from 20.10.1999) - [C:\Programme\VFDIDE\Sample2\Kgv.prj]

File Edit View Tools Window Help

(auto)

FORM LABEL FIELD Button Push Button

ITEM 1 ITEM 2 ITEM 3 SEL-1 LIST1 LIST2 LIST3 GADGET

AAAAA BBBBBB CCCCCC DDDDD

C:\Programme\VFDIDE\Sample2\Kgv.prj

- Project Forms
 - formID_KGV
 - Fields
 - fieldID_Pz
 - fieldID_Wasser
 - fieldID_Strom
 - Form Bitmaps
 - Labels
 - Normal Buttons
 - Menu Systems
 - Message & Alert Boxes
 - Project Bitmaps
 - Strings
 - Various
 - Files

Palm-IDE

KG V 432 Früh Auf

Löschen Übertragen

Einträge 1 aktueller Eintrag 1

25.01.98 09:39 Batt. 2.99 V (=100%)

Version 1.0 by Ole Grossklaus (1997)

Name	fieldID_Pz
Unique Index	1267
Left	21
Top	29
Width	65
Height	15
Usable	1 - Yes
Enabled	1 - Yes
Alignment	0 - Left Aligned
Font	1 - Bold
Editable	1 - Yes
Underlined	0 - No
Line Type	0 - Single Line
Dynamic Size	0 - No
Maximum Characters	4
Auto Shift	1 - Yes
Numeric	0 - No

Defines whether or not the content of the Field is editable.

By Ole Grossklaus (Version 4.1 from 20.10.1999)

CAPS NUM 17.10.99 14:11

VFDIDE

- Why you want to use VFDIDE
 - Visual C++ programmer
 - Apps need to be scalable
 - Cost \$55
- <http://www.vfdide.com>

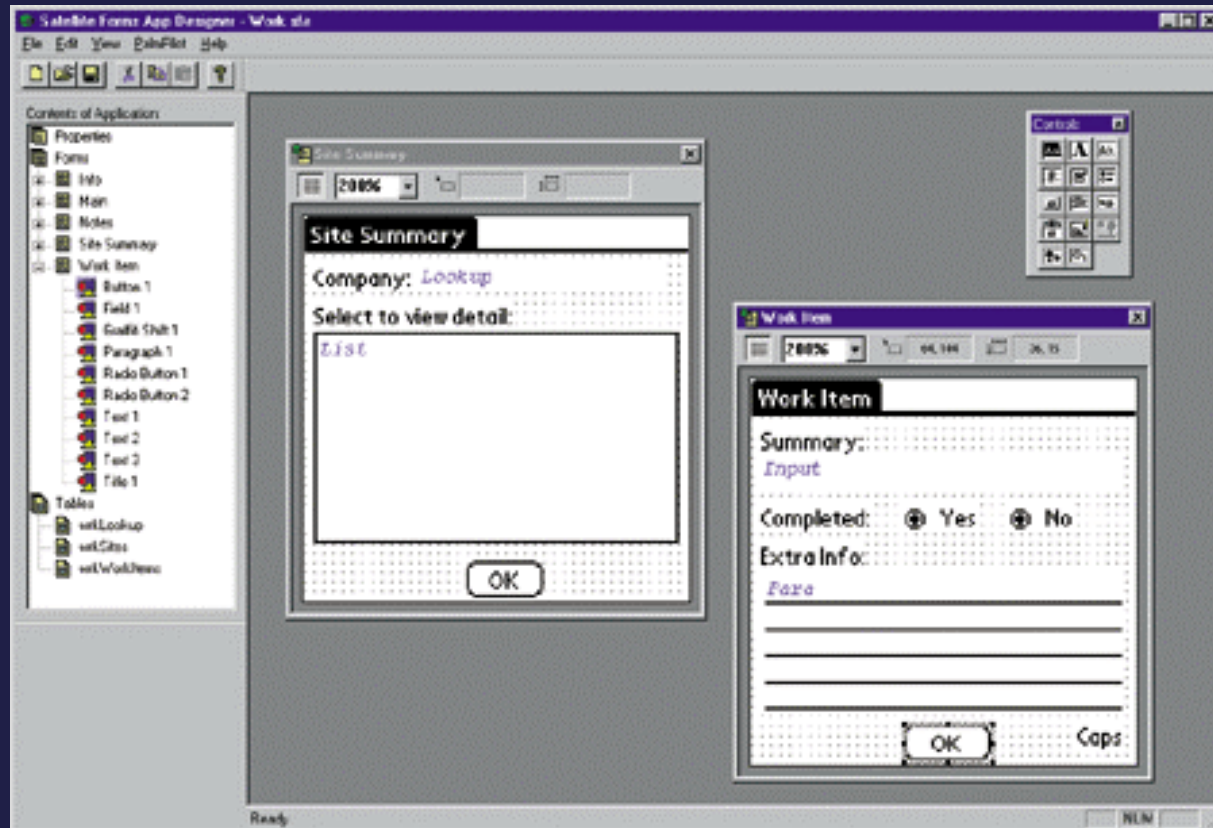
Satellite Forms

- Visual rapid application development
- Visual Basic like
- No programming
- Third party Plug-in support
- Cost \$795

Satellite Forms

- Features
 - Create application with drag-and-drop
 - Multi-form applications with information sharing
 - ActiveX control for HotSync (Access, FoxPro, FileMaker, Dbase)
 - Custom forms designer
 - Scripting support to add more business rules, logic, calculation, and validation
 - Support for 3rd party controls and plug-ins

Satellite Forms



Satellite Forms

- Why you want to use Satellite Forms
 - Create “pen-friendly” forms with no computer experience or programming
 - Synchronize data at the press of a button
 - Need to develop quick database applications
- <http://www.pumatech.com>

Pendragon Forms

- Rapid database form development
- Best for developing inventory control, patient tracking, work orders etc.
- Build a simple work order application in 15 minutes with no programming
- Cost \$149.00

Pendragon Forms

- Features
 - Bi-directional synchronization with existing Access and ODBC databases
 - 21 different field types for data input and design
 - Map forms to external databases (Access and ODBC)
 - Generate forms based on external table design
 - Support for scripting language

Pendragon Forms

The screenshot shows the 'Form Designer' window with the following components:

- Title Bar:** Form Designer
- Form Name:** Simple Work Order
- Field:** 16
- Field Name:** Work Order Status
- Field Type:** Popup list
- Popup Options:** New, In Progress, Completed
- Buttons:** End, Record View, and navigation arrows.

The 'Work Order Status' field is a popup list with a dropdown arrow and the text 'Select one...'. The 'Popup Options' list contains three items: 'New', 'In Progress', and 'Completed'. The 'Buttons' section includes an 'End' button, a 'Record View' button, and four navigation arrows (left, right, and double left, double right).

Pendragon Forms

- Why you want to use Pendragon Forms
 - Create data collection apps
 - Need to map forms with external tables
 - Cost \$149.00
- <http://www.pendragon-software.com>

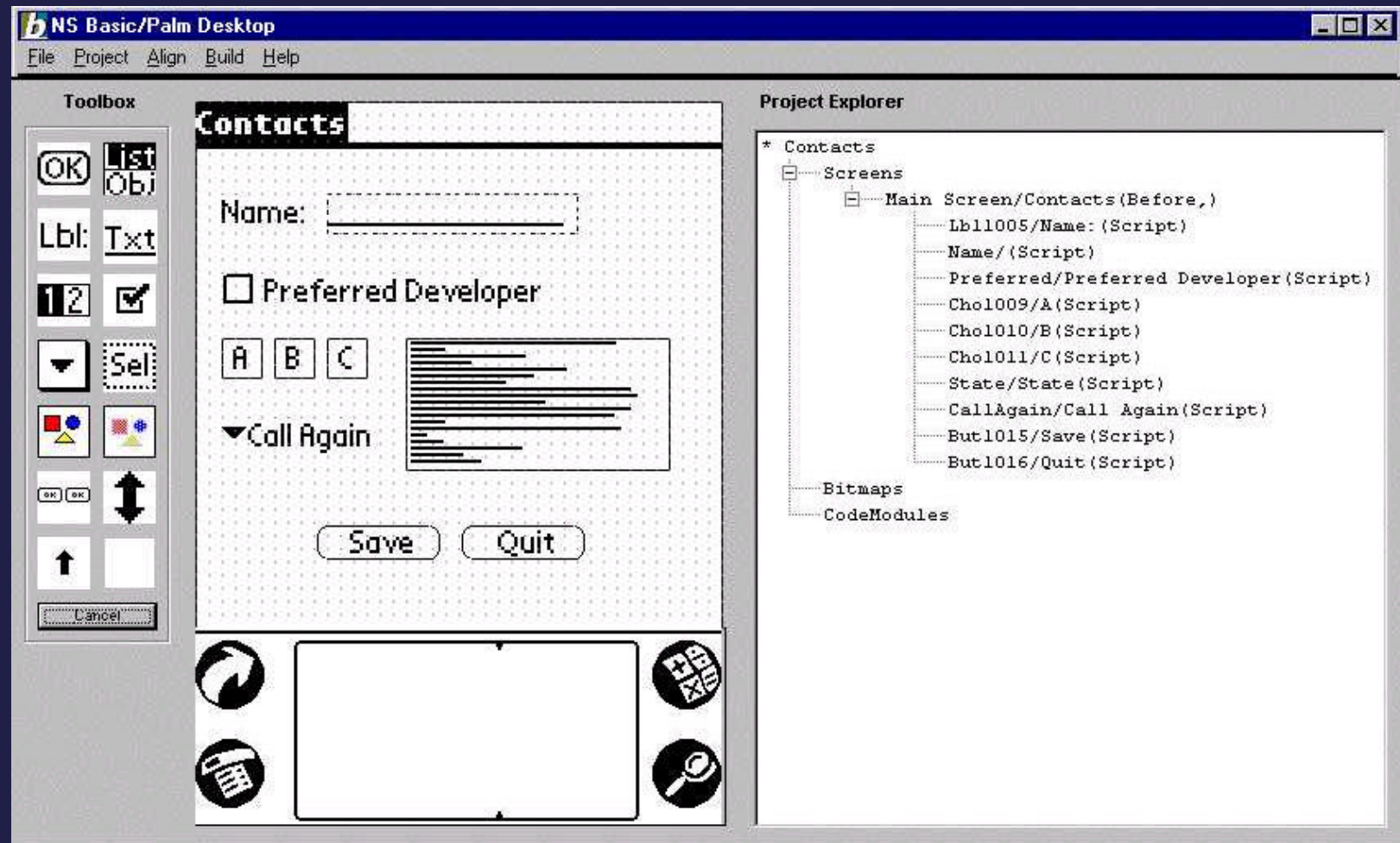
NS Basic

- Visual Basic Style IDE for Palm OS®
- Over 150 functions and statements
- Create simple application in an hour or less
- Cost \$99.95

NS Basic

- Features
 - Standard and structured BASIC support
 - Over a dozen screen objects
 - Create buttons, fields and more
 - Produces standalone Palm apps
 - Serial Communication support
 - Math and trigonometric function support
 - Built-in database support

NS Basic



NS Basic

- Why you want to use NS Basic
 - Quick learning curve
 - Similar to Visual Basic
 - Little programming
- <http://www.nsbasic.com>

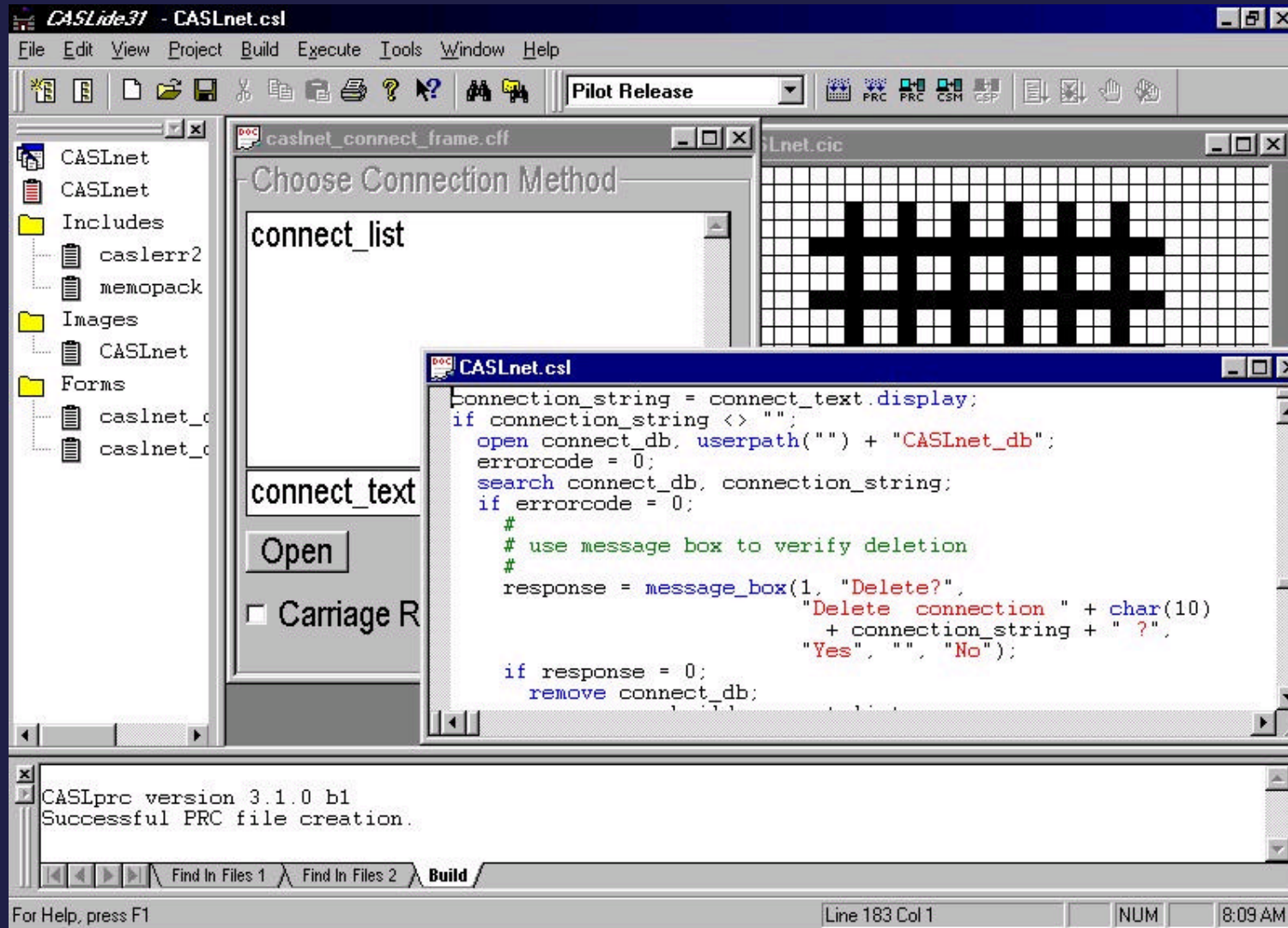
CASL

- Compact Application Solution Language: CASL
- Visual development tool
- Syntax is similar to IZL
- With or without runtime support
- Cost \$64.95

CASL

- Features
 - Multi-Platform—Palm OS[®] , Windows, WinCE
 - Drag-n-Drop forms based development for UI design
 - Built-in database capabilities with a built-in conduit
 - Supports SMTP email, TCP/UDP network communications and serial communications
 - CASL runtime or standard C support (CASL Pro)
 - Freely available libraries to support printing (SCS Palmprinter or Symbol SPT devices)

CASL



CASL

- Why you want to use CASL
 - Little programming
 - Fast with C code generation (Only in CASL Pro)
 - Libraries for printing via IR
- <http://www.caslsoft.com>

HanDBase

- Create, view and modify databases on your Palm OS®
- No coding necessary
- Development on the device
- Cost \$24.99

HanDBase

- Features
 - Linked multiple relational database
 - Support up to 60 databases with 30 fields and can contain 65,000 records per database
 - Pop-up field, filtering, sorting
 - Exporting—Excel, CSV, Word, HTML, XML
 - Plug-In Architecture for third-party add-ons
 - Over 350 applets are available

HanDBase

Edit Field 6

Field Name Prescription.....

Field Type: ▼ DB Popup

☒ Visible ☒ Export/Print

Pixels Shown 58.....

Max Characters 250.....

Other Database Name: Drug List... ▼

Other Field Number: 2.....

Group (0=none) 0.....
☐ Popups Append

Edit Database

Database Name Checkbook.....

☒ Backup Database ☐ Global Find

Category ▼ Unfiled

Edit Fields:

Date
Description
Amount
Adjustment
Check Number
Category

Edit Record

▼Name	John Doe
▼SSN/ID	593 22 1266
▼Location	TU
▼Birthdate	11/14/67
Age	32
▼Race	W
▼Sex	M
▼CC	CP
Admit Data	<input type="button" value="E"/>
HD	7

⬇

HanDBase

- Why you want to use HanDBase
 - Database forms
 - Flexibility to create, edit, and view databases in the field
 - Lots of fields (Date, Time, Pop-up, etc.)
 - Low cost \$24.99
- <http://www.ddhsoftware.com>

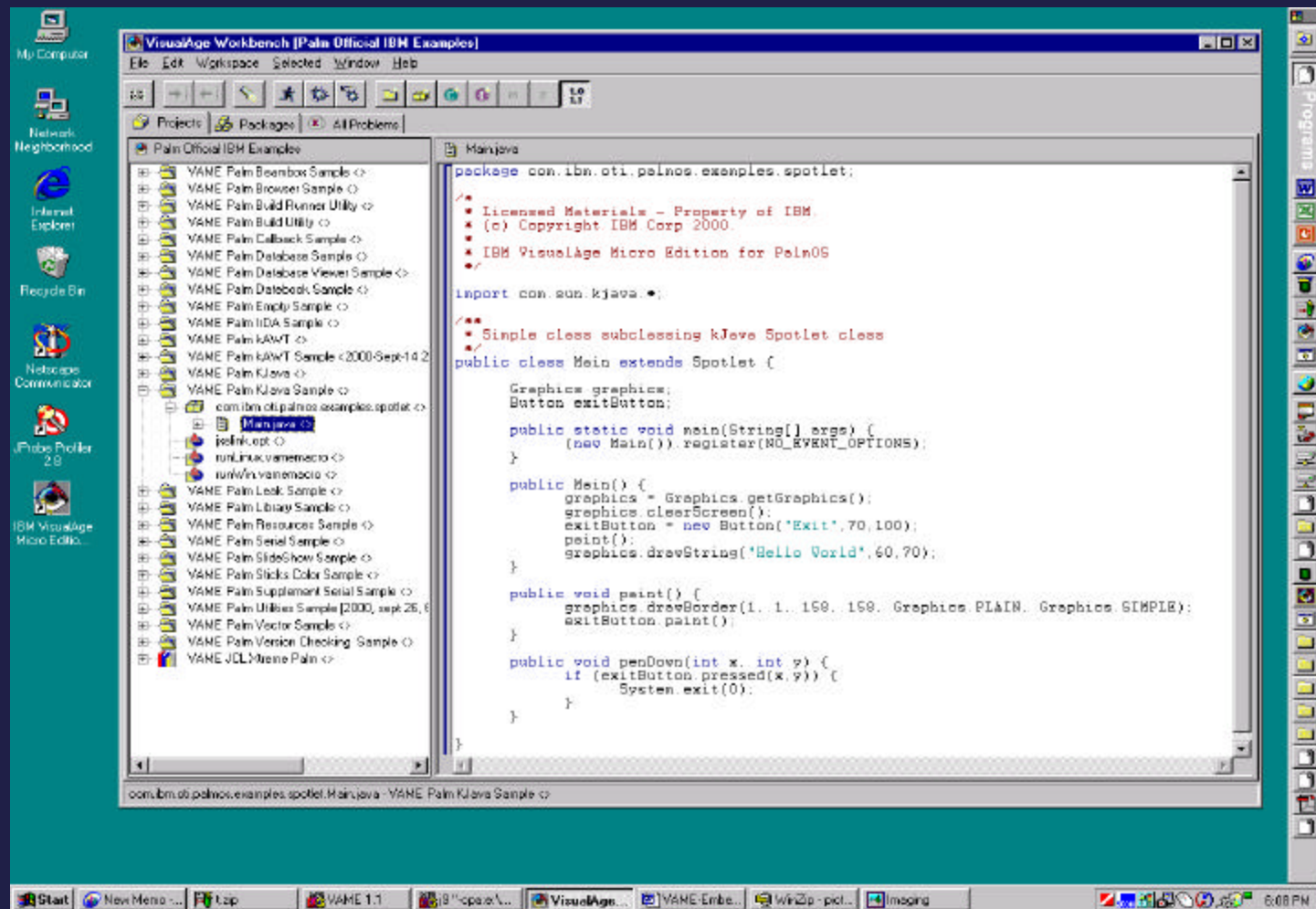
VisualAge Micro Edition for Palm OS

- Java development tools for Palm OS®
- Full Java support
- Support JDK 1.2.2
- Support Windows (Windows 2000) and Linux
- Cost around \$99

VisualAge Micro Edition for Palm OS®

- Features
 - Java Native Interface (JNI) support
 - Garbage collection
 - Server support via TCP/IP
 - Optional dynamic class loading from class or jar files
 - Additional class library for Embedded Systems
 - Tools for code configuration, optimization and reduction tasks
 - IBM's VisualAge IDE

VisualAge Micro Edition for Palm OS



VisualAge Micro Edition for Palm OS

- Why you want to use VisualAge
 - Java development
 - IBM support
- <http://www.embedded.oti.com>

Conduit Development

Michael Knopp
Developer Support Engineer
Palm, Inc.

Conduit Development Tools

- EHAND Connect
- Palm CDK
- Palm HotSync[®] Server



EHAND Connect

- Write custom conduits using Visual Basic or any COM-enabled language (Java, Delphi...)
- Easy to use, create a running conduit with less than 30 lines of code
- Free developer license with 2 restrictions
- Other licenses (\$10 or \$20 per end user)



EHAND Connect

- Features
 - Use Visual Basic to create conduits
 - Hides low-level complexity (byte ordering, calling conventions, etc.)
 - Easy integration with other Windows components via COM (ODBC, MS Access, MS Office, etc.)
 - Wizard conduit installation process
 - Includes full sample codes, thorough reference manual, and developer's guide



EHAND connect

- Why you want to use EHAND Connect
 - Fast custom conduit development
 - Easy to program (Visual Basic or COM-enabled)
- <http://www.ehand.com>



Palm CDK

- Palm Conduit Development Kit
 - C/C++ Sync Suite
 - C/C++ conduits, Mac and Windows
 - Sync Suite Java
 - Java conduits, Windows
 - COM Sync Suite
 - Visual Basic Conduits, Windows
- Free download
 - <http://www.palmos.com>



Palm CDK

- Features
 - Conduit Wizard and Starter Code
 - Sample code for all standard Palm OS® applications
 - SyncManager API
 - Synchronization Base Classes or Objects
 - Conduit Inspector for conduit debugging
 - Conduit Installer



Palm CDK

- Why you want to use the Palm CDK
 - Free
 - Sample Code, knowledge base, support
 - Visual C++, Visual Basic, Java
- <http://www.palmos.com>

Palm HotSync[®] Server

- Microsoft Exchange conduit (E-mail and calendar)
- Comprehensive console-based management
- Open architecture
- Wireline and Wireless support
- Available from selected Palm resellers
 - www.palm.com/products/enterprise/server.html

Palm HotSync[®] Server

- Features
 - Concurrently synchronize hundreds of Palm[™] handhelds with enterprise data and services (email, calendars, databases, etc.)
 - Application development and customization
 - Centralized administration, backups, application distribution, etc.
 - TCP/IP support for remote synchronization

Palm HotSync[®] Server

- Why you want to use the Palm HotSync Server
 - Robust enterprise solution
 - Application development and customization
- www.palm.com/products/enterprise/server.html

Web Clipping Tools

Kamran Khan
Developer Support Engineer
Palm, Inc.

Web Clipping Tools

- Web Clipping Application Builder (WCA)
- Image Checker

WCA Builder

- Build WCA from HTML
- Simple and easy to use
- Rich set of tools to help authoring WCA
- Free from Palm, Inc.

WCA Builder

- Features
 - Converts HTML (3.2) to WCA
 - Support tables (no embedded tables)
 - Support color
 - Version 1.0.1—1, 2 bit
 - Version 1.5—1, 2, 4, 8, and 16 bit
 - Embed version number in the WCA
 - Support for Shift_Jis (Japanies character set, v1.5 only)
 - Data compression
 - Version 1.0.1—5 bit
 - Version 1.5—Lz77 (v2.0 of WCAs)

Image Checker

- Image preview for the WCA
 - Let you see how it will look on the device
 - Support GIF, JPEG, and BMP files
 - Integrated in the Mac WCA builder
-
- <http://www.palmos.com/dev/tech/webclipping>

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Q&A

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