



Key Projects Summary

The following is a selection of notable projects and products from our portfolio. These projects collectively represent our extensive experience in developing mobile and wireless software applications on all of the major handheld computing and smartphone devices.

A key characteristic of these projects is that in all of them we were engaged by the client ***not as programmers hired to write code, but rather as a team challenged to design and create a product.*** There are perhaps thousands of programmers who know enough of the necessary computer language to write code for a given mobile platform. There are very few companies indeed who can design and create a rich, highly usable software product, which takes advantage of the target device, acknowledges the device's shortcomings, and delights the customer. Even fewer possess this capability across all the major mobile computing device platforms.

This makes a significant difference in the types of projects we take on, how we approach the initial design stages of the project, our relationship and level of communications with our client, and (we believe) ultimately the quality and usability of the finished product.

Following the list of notable projects are several featured "Spotlights" which provide a more close up view of specific projects we are especially proud of having completed.

Client	Project	Platform(s)
The Weather Channel	Weather Channel Mobile for BlackBerry, Windows Mobile and Treo smartphones	BlackBerry, Windows Mobile, Palm OS
A.T. Cross	Electronic Ink transfer for CrossPad	Blackberry, Windows
Wrox/Wiley Publishing	Author of "Hacking Blackberry" book (part of the ExtremeTech series)	Blackberry
Bachmann Software	FilePoint Wireless Remote File Retrieval	Blackberry (1st Quarter 2006)
Bachmann Software	PrintBoy mobile printing	Blackberry (4th Quarter 2006)
Aetna	Patient Tracking System for nurses	Windows Mobile / Pocket PC, XML
Campus K12	Teacher Assessment System	Windows Mobile / Pocket PC, Palm

		OS, XML
EyeOnSolutions	Inspection Reports Module	Windows Mobile / Pocket PC, Palm OS
Bachmann Software	FilePoint Wireless Remote File Retrieval	Windows Mobile / Pocket PC
Bachmann Software	PrintBoy mobile printing	Windows Mobile / Pocket PC
Interact Commerce Corporation (ICC)	ACT! Link	Palm OS, Windows
Dataviz	Port of MS Excel to handheld	Palm OS
Cutting Edge Software	Port of MS PowerPoint to handheld	Palm OS
Cutting Edge Software	QuickConference, wireless document conferencing	Palm OS, Java, Server technologies
Wrox Publishing	Professional Palm OS Programming	Palm OS
Xerox	MobileDocs wireless document management	Palm OS, wireless networking
Day-Timers	Paper Organizer handheld software	Palm OS, PIM integration
Hewlett Packard	JetSend wireless data exchange	Palm OS
Bachmann Software	Wireless document printing for Symbian Series 60	Symbian Series 60
Bachmann Software	Wireless document printing for Symbian UIQ	Symbian UIQ (4 th Quarter '05)
Bachmann Software	FilePoint Wireless Remote File Retrieval	Symbian UIQ (1 st Quarter '06)

Project: The Weather Channel for BlackBerry

Client: The Weather Channel

Market: Business Traveler, Content Delivery

Platform: RIM BlackBerry

Description

Bachmann Software was engaged by The Weather Channel to produce a native BlackBerry software application which delivers detailed weather forecasts, severe weather alerts, airport delay information, and interactive radar and satellite maps to the growing number of business users who carry Research In Motion's BlackBerry device.

The Weather Channel for BlackBerry was developed as a native BlackBerry program which would communicate wirelessly with The Weather Channel's servers over HTTP to retrieve and deliver timely forecast data on-demand. The application was developed in Java, but makes full use of BlackBerry-specific device extensions to produce a vivid, eye-catching presentation which could meet our client's high quality standards and proudly carry The Weather Channel's brand.

In addition to the BlackBerry implementation, Bachmann was further engaged by The Weather Channel to produce versions of The Weather Channel Mobile for Palm Treo and Windows Mobile PDA's and smartphones.









Challenges

- Go beyond the basic textual presentation of weather data to produce a colorful and well-designed graphical presentation of weather data.
- Implement image display and animation support for use with radar and satellite maps
- Create alerting system to notify the user of national and local severe weather alerts upon entry to the application.




- Implement robust HTTP and XML support for the retrieval and parsing of weather content and map images from different Weather Channel servers.
- Enable automatic handling of connectivity over both enterprise and consumer network connections.
- Design and implement a unique customized title bar area which presents The Weather Channel brand and location information in a consistent fashion across all screens
- Educate and introduce The Weather Channel marketing and product management to the devices, platforms, carriers and customer expectations associated with smartphones and PDAs.

The Weather Channel for BlackBerry - Screenshots

<p style="text-align: center;">Atlanta, GA Currently 3/14/06</p>  <p>Fair 51 F Feels Like 51 F</p> <hr style="border-top: 1px dotted #000;"/> <p>UV Index 2 Low Dew Point 33 F Humidity 50 % Visibility 10.0 mi Pressure 30.01 rising Wind NW at 20 mph Gust N/A Sunrise 6:49 AM Sunset 6:44 PM</p>	<p style="text-align: center;">Atlanta, GA Hourly 3/14/06</p> <p>10 AM  Partly Cloudy NW 17 52 F Feels 47 F Precip 20%</p> <p>11 AM  Partly Cloudy NW 17 54 F Feels 49 F Precip 20%</p> <p>12 PM  Sunny NW 18 56 F Feels 52 F Precip 20%</p> <p>1 PM  Sunny NW 18 58 F Feels 54 F Precip 20%</p> <p>2 PM  Sunny NW 18 60 F Feels 57 F Precip 10%</p>
<p style="text-align: center;">Hartsfield-Jackson Atlanta Int'l Airport, Atlanta, Georgia Airport Delays</p> <p>Hartsfield-Jackson Atlanta Int'l Airport</p> <p>Departure delay : 0:00 Arrival delay : 0:00 Currently : 52 F</p>  <p>Mostly Cloudy</p> <p>Visibility : 10.0 Wind : NW at 25 mph</p> <p>Hartsfield-Jackson Atlanta International Airport, 6000 North Terminal Parkway Suite 435, Atlanta, GA 30320</p>	<p style="text-align: center;">Atlanta, GA Radar Map</p> 

Atlanta, GA
Currently 3/14/06



 A Severe Weather Alert was found for your location.
Click 'Yes' to view the Alert.

Wind	N/A to 20 mph
Gust	N/A
Sunrise	6:49 AM
Sunset	6:44 PM

Atlanta, GA
Severe Weather Alert

...WIND ADVISORY REMAINS IN EFFECT FROM NOON TODAY TO 6 PM EST THIS AFTERNOON...

A WIND ADVISORY REMAINS IN EFFECT FROM NOON TO 6 PM EST TODAY.

A COLD FRONT ACROSS NORTHWEST GEORGIA WILL MOVE RAPIDLY ACROSS THE REST OF NORTH AND CENTRAL GEORGIA THIS MORNING. WINDS WILL BECOME GUSTY OUT OF THE NORTHWEST THIS AFTERNOON...MAINLY ACROSS NORTH GEORGIA. THE ADVISORY AREA IS GENERALLY ALONG AND NORTH OF A LINE FROM FRANKLIN TO PEACHTREE CITY TO GREENSBORO.

A WIND ADVISORY MEANS THAT SUSTAINED WINDS OF 20 TO 25 MPH OR WIND GUSTS OF AT LEAST 35 MPH ARE

Project Spotlight: ACT! Link and ACT! for Palm OS

Client: Interact Commerce Corporation

Market: Sales Force Automation, Contact Management

Platforms: Palm OS, Windows

Description

Bachmann was engaged by ICC to develop both a synchronization conduit (ACT!Link) as well as a full Palm OS handheld application as mobile computing add-ons to its popular ACT! contact management solution.

ACT!Link was developed as a Palm-compatible HotSync Conduit, which would provide compatibility between the Palm "PIM" applications and a desktop ACT! database.

ACT! for Palm OS was the next logical step in adding handheld support for ACT! customers, in that it replicated much of the desktop ACT! version's full contact management capability, right on the handheld.

Challenges

- Provide quick navigation and access to contacts, notes, histories, activities, sales opportunities and groups.
- Maintain the spirit, look and feel of a popular desktop application which has a rabid fan base.
- Deliver acceptable performance on a 25mhz Palm handheld containing tens of thousands of contacts and related information.
- Provide familiarity in look and feel to Palm handheld users among address book and calendar modules.
- Provide relational database functionality on a platform which has no relational database support
- Ensure that each handheld synchronization correctly processes thousands of records in an acceptable amount of time.

Screenshots

The screenshots illustrate the following features and views:

- Screenshot 1 (Top Left):** Contact record for Albert Barry with a dropdown menu for categories (Main, Phone, Business, Personal, Alt. Contact, Last Results, User Fields).
- Screenshot 2 (Top Middle):** Contact record for Albert Barry with a dropdown menu for activity types (Notes, Histories, Activities, Sales/Opps, Groups).
- Screenshot 3 (Top Right):** Contact record for Chris Huffman with a dropdown menu for search filters (Company, First Name, Last Name, ID/Status, Other Fields, My Record, All Contacts).
- Screenshot 4 (Top Far Right):** A 'Lookup' dialog box with search criteria for Company and search results starting with 'm'.
- Screenshot 5 (Middle Left):** Contact record for Albert Barry with a dropdown menu for categories (Phone).
- Screenshot 6 (Middle Middle):** Contact record for Albert Barry with a dropdown menu for categories (Business) and an 'Activities' section showing a list of tasks.
- Screenshot 7 (Middle Right):** A search results window showing a list of contacts with columns for Company/First, E-mail, Last/First, and Mobile.
- Screenshot 8 (Bottom Left):** Contact record for Albert Barry with a dropdown menu for categories (Personal) and a 'Sales/Opps' section showing a list of transactions.
- Screenshot 9 (Bottom Middle):** Contact record for Albert Barry with a dropdown menu for categories (User Fields) and a 'Groups' section.
- Screenshot 10 (Bottom Right):** A search results window titled 'Find' showing matches for the search term 'send sampl...' with a 'Find More' button.

ACT! ◀ S M T W T F S ▶

10/15/02

- ◆ Discuss proposal (Hart, Greg)
- ◆ Negotiate price (Barry, Albert)
- ◆ Sample Hagengast Estate... (Mikola, Allison+)
- ◆ Place quarterly order (Jensen, Mackenzie)

8:00
9:00 Coaching meeting

1

ACT! ▼ All

Albert Barry ▼ Main

Mercury Production Mgmt.
Phone: 303-555-3278
Mobile: 303-555-9666
E-mail: barry.al@mercuryp..
ID/Status: Customer

Activities

10/1/02 To-Do Send proposal
10/15/02 Call Negotiate price

2

Sales Opportunity i

Contact: Barry, Albert
Product: Bulk Coffee
Type: Delivery
Units: Reseller
Close On: Special order
Will call
Stage:
Probability: %

1

Sales Opportunity i

Contact: Barry, Albert
Product: Bulk Coffee
Type: Delivery
Units: 50 **Price:** 10.00
Close On: Thu 10/31/02
Stage: Negotiation
Probability: 85 %

2

Activity i

Clear Activity i

Contact: Barry, Albert
Time: 8:33 pm
Date: Tue 10/15/02
Type: To-Do
Re: Send proposal

Result: Done
 Add details to history

3

ACT! ▼ All Dates

- Today
- This Week
- Past Dates
- Today and Future
- Date Range

Type

- Call
- Call
- Call
- Call
- Call
- Call
- Call
- Call
- Call
- Call
- Call

4

Sales Opportunity i

Contact: Barry, Albert
Product: Bulk Coffee
Type: Delivery
Units: 50 **Price:** 10.00
Close On: Thu 10/31/02
Stage: Initial Communicat.
Probability: Negotiation

3

Sales Opportunity i

Contact: Barry, Albert
Complete Sale i
Result: Closed/Won Lost
Reason: Quality
Product: Bulk Coffee
Type: Delivery
Units: 50 **Price:** 10.00
Actual Close Date: Thu 10/31/02

4

Activity i

Contact: Barry, Albert
Type: Meeting
Time: 8:40 pm - 9:40 pm
Date: Mon 11/4/02
Priority: High
Re: Check in

Alarm: 5 Minutes
Recurs: Monthly **Private:**

ACT! Alarm

Call

Albert Barry
Mercury Production
303-555-3278
Confirm Order
10/17/02
5:00 pm

5 minutes

Project Spotlight: SmartPaper for CrossPad

Client: A.T. Cross / Cross Pen Computing

Market: Personal Productivity, Digital Ink, Electronic Paper, Handwriting Recognition

Platform: Windows, RIM Blackberry OS

Description

The CrossPad product, produced and marketed by A.T. Cross and its technology division Cross Pen Computing, was essentially a yellow notepad attached to a digitizer tablet, designed as an electronic note-taking device. A special pen allowed the user to write using normal free-form handwriting, just as they would on a pad attached to a clipboard. Pen strokes would be captured as "Electronic Ink", and could then be transferred to a personal computer for storage as page images, or for conversion to text through handwriting recognition software.

The CrossPad as a product was discontinued several years ago, but at the time it was one of the most innovative mobile computing products on the market. It was also one of the most practical for the average user, given its familiar paper-and-pen usage model. At the time of its introduction, only the most primitive early Palm Pilot was available, and the options for mobile capturing of handwritten data were extremely few.

Bachmann was brought in to create solutions which addressed the following shortcomings of the CrossPad product:

- Integrate the CrossPad with common Desktop / Windows applications such as Outlook email, word processing, and calendar/to-do/contact "PIM" data.
- Create a method for wirelessly distributing handwritten pages to a remote host
- Increase the reliability of handwriting recognition

Challenges

- Design a method of "markup" allows users to specify sections of handwritten text are in fact one of the following: "email", "contact", "document", "To-Do"
- Devise a series of Windows application "plug-ins" that allow for the transfer of CrossPad-written data elements to specifically targeted PIM, Email and Office applications, specifically Outlook e-mail, Microsoft Word, and Day-Timer Organizer. We developed the "SmartPaper" concept for A.T. Cross in response to this challenge. SmartPaper, designed as a Windows Ink Handling engine, received incoming handwritten pages with special markup tags, intelligently extracted the specified passages and automatically created them as emails, word documents and other desktop data objects in standard Windows applications. SmartPaper was subsequently bundled as part of the CrossPad product
- The CrossPad required a serial cable connection to a local PC which ran the Ink Desktop software. This was not a viable solution for many potential customers, especially vertical market solutions built around the CrossPad

(warehousing, inspections, etc). Thus we designed and created a demonstration of how to wirelessly transfer handwritten data ("Ink") out of the CrossPad to a remote desktop host. At the time, wireless data was in its infancy, there was no GPRS, no smartphones, no Wi-Fi, no Bluetooth. We identified the RIM Blackberry PAGER as an inexpensive, off-the-shelf, programmable device with an extremely reliable wireless messaging capability as an accessory which could be attached to the CrossPad and serve as an "intelligent wireless modem" for transferring ink to remote hosts via email and messaging protocols. We developed a RIM custom application which was able to prove out this concept, taking ink data from the CrossPad, attaching it to a standard email message, and programmatically forwarding it out to a remote host via the wireless data network.



Data Type : Schedule [X]

SmartPaper recognized the following items as Schedules. Make any corrections necessary and click Finish to add the items.

Schedule

Date	Time	Subject	
5-21-1999	2:00pm	AT Cross Mtg	
7-4-1999	1:00pm	4th of July bbq	

[Edit] [Remove] [Data Type]

[Finish] [Cancel]

UnKnown Data Type [X]

The following string could not be identified as any configured Data Type. Please choose a Data Type from the list.

Glenn Bachmann 973 729-8626 glenn@bachmannsoftware.com

Data Type [Contact]

Project Spotlight: FilePoint for Windows Mobile / Pocket PC

Client: Bachmann Software

Market: Remote Wireless Document / File Retrieval

Platform: Windows Mobile / Pocket PC

Description

Bachmann Software's FilePoint for Palm OS, designed and developed by its own internal team of software engineers and first released in 2002, provided wireless Palm handheld users with both an "explorer-like" file manager, as well as the ability to use Windows Networking to connect Palm handhelds to a local area "Network Neighborhood", for the purpose of file retrieval.

With the significant growth and introduction of the smartphone as the preferred handheld model, Bachmann faced several challenges:

Challenges

- Provide a way to connect safely and securely to home and office network computers over the wide-area network using GPRS
- Make it simple and easy for users to navigate remote folders, find and download their documents, despite a slow and intermittent cellular data connection.
- Create a product that is compatible with current and future Windows Mobile smartphones and other wireless devices running Microsoft's Pocket PC platform.

Screenshots

FilePoint Exchange 2:35

Current Account: Home
 File Name: Work
 Home

0 File(s) stored on local device

Tools

FilePoint Exchange 3:14

Please enter one or more keywords, and select the type of search you wish:

Google Desktop Search Search

123 1 2 3 4 5 6 7 8 9 0 - = < >
 Tab q w e r t y u i o p []
 CAP a s d f g h j k l ; '
 Shift z x c v b n m , . / < >
 Ctl á ü ` \ ↓ ↑ ← →

Cancel

FilePoint Exchange 3:21

Results from Google Desktop Search

<input type="checkbox"/>	File Name	Ext	
<input type="checkbox"/>	Notes on sales leads March-...	doc	0
<input type="checkbox"/>	March 2005 Sales Leads.xls	xls	0

Search the web for 'March Sales Leads'

Retrieve Selected Files Done

New Search

FilePoint Exchange 3:46

File Name	Ext
A:	
C:	
D:	
E:	

Remote drive list

Retrieve Selected Files Done

FilePoint Exchange 3:48

File Name	Ext
..	
bss	
CONTACTS	
Documents and Settings	
iambic SyncManager	
JAL_DOWNLOADS	
Julie Express	
MSDOS7	
My Documents	
My Music	
Palm	
Program Files	

Remote E:\

Retrieve Selected Files Done

FilePoint Exchange 3:50

File Name	Ext
..	
Beef Burritos_files	
<input type="checkbox"/> 3 Beans Chili.doc	doc
<input type="checkbox"/> Angel Hair with Sundried t...	doc
<input type="checkbox"/> Beef Burritos.htm	htm
<input type="checkbox"/> Burritos Grande.doc	doc
<input type="checkbox"/> Chili Con Carne.doc	doc
<input type="checkbox"/> Cornbread.doc	doc
<input type="checkbox"/> Creamy Farfalle with Cremin...	doc
<input type="checkbox"/> Fusilli with Shrimp and Arug...	doc
<input type="checkbox"/> Hot Spinach and Artichoke ...	doc
<input type="checkbox"/> Make Your Own Burrito Bar...	doc

Remote C:\Glenn\Cooking\

Retrieve Selected Files Done

Project Spotlight: QuickPoint for Palm OS

Client: Cutting Edge Software (now QuickOffice)
Market: Office / PowerPoint
Platform: Palm OS

Description

Bachmann was selected by Cutting Edge, which develops and markets QuickOffice, to develop a new PowerPoint module to complement its existing word processor and spreadsheet components. QuickPoint would be able to view and navigate PowerPoint presentations on Palm OS handhelds, including zoom capability, notes, outline, and other standard PowerPoint capabilities.

Challenges

- Provide extremely fast slide display and navigation with high-resolution color slides.
- Provide for zoom in and zoom out as well as panning capability using stylus and simple button navigation.
- Support high-resolution displays as well as standard displays
- Maintain small file size for slideshows
- Printing support

Screenshots



Quickpoint 2 of 4

Searching for Your Holy Grail?

- It's right here:
 - Quickoffice Premier - Attachments done right
 - Snappertail - unmatched email client



iGo Quickoffice Premier



Quickpoint 5 of 8

Quickpoint & Pitch



- No lost expansion slots
- No dead batteries
- Less waiting
- Fewer cables
- No resolution compromise
- No redundant software



Quickpoint 6 of 8

The Integrated presentation Solution




- No Xtra Software
- SD Slot Open
- Less Waiting
- Charges Palm

iGo



Quickpoint 5 - 8 of 12

<h4>On the left, 5 out of 12</h4> <ul style="list-style-type: none"> 	<h4>For while here they are seen to pass a path here</h4> <ul style="list-style-type: none">
<h4>On the right, 8 out of 12</h4> <ul style="list-style-type: none"> 	<h4>On the right, 8 out of 12</h4> <ul style="list-style-type: none">



Quickpoint 8 of 12

How to

- Telephone

For 1234 from