

Pawel Michalowski, B.Sc.Cs.
32 Nanook Crescent, Kanata, ON
pawelmic at rogers.com (e), 613.266.3495 (c)
613.591.1531 (h)

Profile:

10 years of solid software design experience on Microsoft Windows platforms.

- Web development using JBuilder (JAVA, JSP), Visual Basic (COM/COM+), Active Server Pages Scripting (ASP with MS IIS), Visual Studio .NET, JavaScript, VBScript, XML, XSLT, XMLDOM, SOAP, Perl, PHP
- Experience in PKI implementation strategies using Entrust PKI products (TruePass, ProfileSever, AutoRA and Manager). Vast knowledge of enterprise software deployment mechanisms. Solid experience in web content management and e-Business solutions.
- Solid background in Object Oriented Programming (OOP) and Design utilizing UML, using Visual C++, C#, Delphi and C++ Builder. Event Oriented Programming (EOP) using RAD platforms such as Visual Basic, Delphi and .NET.
- Computer Telephony Integration (CTI) and design on Dialogic, Rhethorex and PIKA hardware using Pronexus VBVoice platform. Knowledge of signaling protocols, call control and software switching. Understanding of media gateway architecture and IP based network infrastructure.
- Database integration using MS SQL, Oracle 9i and MS Access. Database design strategies, PL/SQL stored procedure implementation, data formatting techniques utilizing XML DOM. Real-time, multi-tasking software development experience using ClearCase, MS Visual Source Safe, WinCvs.
- Working knowledge of OLE Automation Technology (COM, COM+, MTS), Win32 API programming, ActiveX, MAPI, TAPI, SAPI, ADO, DAO. Experience modifying Macromedia Flash Player Plug-in.

Language: English

Security Clearance: Enhanced Reliability (File#: 95195871-0000264669)

Personal Qualities:

Adaptable assertive calm careful caring competitive confident co-operative creative
decisive energetic logical methodical perceptive reliable resilient sympathetic tactful
tenacious

Professional Experience:

Espial Group Inc.	May 2004 – June 2004
--------------------------	-----------------------------

Sr. Application Developer (contract)

Project: Espial Escape Macromedia Flash Plug-In Integration

Espial Escape™ is the first browser Java SDK to offer a scalable configuration matching the memory requirements of a wide range of resource-constrained devices. With support for key Internet standards (including HTTP, SSL, HTML4.0, JavaScript, XML and CSS) and multimedia, Escape provides a full-featured browsing experience with a small core footprint. The project: client's requirement for integrating Espial Escape 5.1 with a Macromedia Flash Player Plug-in.

Responsibilities:

- Win32 API programming using MSVC++ 6.0
- Utilizing technologies such as ActiveX, COM, ATL
- Win32/JAVA port of the ActiveX using MSJ++ 6.0
- Modifying Macromedia Flash Player Plug-in source code to make it work with Espial Escape, Java based browser
- Testing the final product using Acceptance Test Suite (ATS) from Macromedia
- Writing a technical specification document covering the configuration and design requirements for building the custom Macromedia Flash Player Plug-in
- Managing project source control using WinCVS

HRDC	July 2003 – April 2004
-------------	-------------------------------

Sr. Software Designer / Web Developer (contract)

Project: Common System for Grants & Contributions (CSGC) PLC development team.

Grants are unconditional transfer payments which are not subject to being accounted for or audited but for which eligibility and entitlement may be verified. Contributions are conditional transfer payments for a specified purpose, which are subject to being accounted for and audited pursuant to a contribution agreement. The purpose of this project is contribution agreements. Contribution agreements are undertakings between a donor department and a prospective recipient of a contribution, which describe the obligations of each. This web application is utilizing such technologies as COM+, ASP, JavaScript, VB, HTML, MTS, Windows® NT, Windows® 2000, Oracle9i database, Object Oriented Programming, XML, XSL.

Responsibilities:

- Visual Basic (VB6) development in re-designing current version of CSGC PLC module to fit the new code implementation standards (XML/XSL).
- HTML design of new and redesign of existing CSGC PLC module pages.
- Visual Basic (VB6) development, combined with ASP and JavaScript scripting in designing of the CSGC PLC module.
- PL/SQL debugging on the Oracle9i database as part of system integration.

Achievements:

- Successfully converted several existing modules into a new coding standards
- Written new VB COM+ components for the CSGC PLC module
- Debugged and fixed several existing issues within the application
- Designed new HTML/ASP pages CSGC PLC module (Notes to File, etc)

BCE, Emergis Inc.

January 2003 to July 2003

Software Developer / PKI Consultant (contract)

Project: RGG - Registrar General Buy Button (e-commerce web service)

Secure Channel development team. BCE Emergis is a leading North American e-Business company enabling specialized transaction processes for the health, finance and government sectors. BCE Emergis supplies solutions to businesses that automate transactions between companies and allows them to interact, and transact in real-time. Its leading technologies are centered on claims processing, electronic bill presentment and payment solutions. While working at BCE I have strengthened my technical skills in C++/Delphi/Perl development as well as in the area of PKI implementation and integration.

Responsibilities:

- Providing input for the progress of PKI implementation on various Secure Channel projects. Software development of PKI monitoring tools (PKI Monitor, ICMP Ping, TCP/IP Pocket Send test).
- Development of PKI log parsing tools using Delphi and Perl.
- Design and development of Audit Trail Automation solution for the federal government.
- The purpose of ATA was to secure the non-repudiation aspect of e-commerce transactions handled by or for the federal government to prevent e-commerce fraud.
- Design and development of automated software deployment package using InstallShield.

Achievements:

- Successfully designed and developed an ATA solution in Perl
- Wrote several support and design documents according to government templates
- Played integral part in the development of automated deployment of several Secure Channel solutions using InstallShield
- Developed PKI monitoring software which was successfully deployed on the production environment

Bestlane Incorporated

April 2003 – April 2004

Sr. Software/Web Developer (contract)

Project: EZWeb Monitor

Customer required monitoring of the Maersk Sealand website (and other identical sites) for content changes. This website provides rules and rates corresponding to shipments from ports in the forty-eight contiguous states of the United States. The monitoring tool was developed using a COM+ interface to the MS Internet Explorer to be able to login to the website automatically, handle the site session and retrieve and compare data as specified for each phase of this project. This had to be performed because the company did not have direct access to the databases containing all the vital info other than through a web interface. Automation of the process was necessary due to the extremely large amount of data to be verified daily. The results of the tool's query are communicated to the user via automatic email notifications (SMTP, POP3) based on user configured recipients.

The tool retrieves the text for any given rule and compares it with a previously stored copy. If a change is detected, the tool sends an email notification (including a difference from the comparison) to the user. Only rule content changes are monitored, i.e. HTML code, images, banners and other non-rule related content are ignored by the tool. The tool also monitors if a new rule has been added to or subtracted from a given tariff. This involves retrieval of all rule numbers in a given tariff and then comparing with the previously stored copy of this list. If a rule has been added or subtracted to a tariff the two lists will differ and an email notification will be triggered. All these actions are performed via COM+ interface to the MS Internet Explorer. These

are: logging into the specified web site, auto-entering search criteria, waiting for search results and retrieving data, "clicking" through multiple pages if the search result returned more than one page. All actions of the tool were fully automatic and did not require human supervision. Technologies mainly used were Object Oriented Programming, XML, XSL, ASP, HTML, VB6, COM+ and Delphi 5.

Arkosoft Technologies

November 2001 – March 2004

Sr. Software/Web Developer/IVR Integrator (contract)

I have developed several CTI (computer telephony integration) applications for automation of 800 number response campaigns. Using the phone and the web as call-to-action response vehicles, the applications can track market responses generated from any electronic or print media campaign. The tools/technologies used were VB6 (COM+), ASP, HTML, JavaScript, MS SQL Server, Windows 2000 Pro Server, VNC for remote system administration. I have also worked on the development of the following computer telephony projects:

Interactive Voice Response (IVR) - Application providing a telephony interface for callers to interact with computer databases using touch-tone keys (DTMF) or voice commands (Speech Recognition). I have integrated 3rd party applications to interface with external databases. I have helped to provide clients with a host of reporting tools including automatic regular report generation of call statistics or customer data specific to their application.

Auto Attendants / VoiceMail - Application designed to answer calls and route a caller to a specific extension, department, with the ability to leave messages. I have implemented customized Auto-Attendants and VoiceMail systems that met client's unique requirements including Speech Recognition.

Speech Recognition Applications - Word and phrase recognition in which a system is trained to recognize words or phrases and to respond appropriately by routing the call, giving appropriate information, etc. Implementing Speech Recognition into client's application provided their customers with the flexibility of using their voice in situations where keypad input is not effective, such as cell-phone usage from a vehicle.

Fax-on-Demand - Also called Fax Back, allows callers to request documents in an information base to be faxed to them by selecting a specific document from an automated menu.

Text-to-Speech Applications (TTS) - for converting text information into synthetic speech output. This technology is very useful and I have implemented it for some clients where client application required large volumes of variable information to be delivered to the caller, and in situations where it was not possible to provide pre-recorded message playback. Typical applications included address information delivery, or email reading capability.

Help-Desk (Call Center Applications) - A centralized location (or contact-center) where queries about products, services, and problem reporting are answered. I have worked on a custom IVR application including Screen-Pop technology which reduced call times and made client's agents more productive. Our IVR front-ended call center solution managed the retrieval of critical information from the caller as well as information retrieval from customer databases. This information was linked to the call and "popped" to the agent upon transfer.

Outbound Telemarketing Application - An automated outbound calling system placing calls to customers in order to provide marketing information and/or retrieve information from callers about product preferences/customer experience etc. Our IVR system was effective in calling out to a large number of customers to survey and retrieve valuable information about client company's products and services. In addition statistical analysis was made regarding the information that was retrieved from the calls and provided back to the client in easy to read reports.

AutoDial, Preview & Predictive Dialing - An automated application capable of making large quantities of outbound calls. In a preview dialing application the agent can preview the customer information before the call is made. Our predictive dialing application placed automated outbound calls and passes answered calls to agents along with a customer information screen.

HRDC

July 2001 – December 2002

Sr. Software Designer / PKI Consultant / Web Developer (contract)

Project: EIAppliWeb

EIAppliWeb was a pilot project that was part of the Government of Canada's GOL initiative. The first step in what eventually became a complete on-line service to Employment Insurance clients. This web application is utilizing such technologies as COM+, ASP, JAVA, JavaScript, VB, HTML, MTS, Windows® NT, Windows® 2000 and Oracle8i/9i.

Responsibilities:

- Overseeing and providing the input for the progress of PKI implementation in the EIAppliWeb to the team members.
- Attending the Secure Channel meetings with regards to overseeing and providing the input for the progress of PKI implementation in EIAppliWeb.
- Giving advice on Entrust/TruePass and other e-commerce technologies, and or products.
- Implementing electronic signing capabilities into EIAppliWeb using Entrust/TruePass technology.
- Visual Basic (VB6) development in re-designing current version of EIAppliWeb to fit the new implementation with Entrust/TruePass.
- Java (JBuilder4) development creating an Entrust/TruePass, transaction signing, back end implementation for EIAppliWeb.
- Modifying the existing TruePass Concrete Transaction System.class to meet the electronic signing needs of EIAppliWeb.
- HTML design of new pages to be involved in the transaction signing.
- Documenting the EIAppliWeb application flow with respect to PKI implementation.
- Documenting the PKI implementation within EIAppliWeb.
- Writing an EIAppliWeb Installation Guide.
- Visual Basic (VB6), ASP development and JavaScript scripting in designing of the Interactive Fact Finding System (IFFS) part of EIAppliWeb, later converted to .NET technology (ASP.NET, ADO.NET, VB.NET).
- PL/SQL debugging on the Oracle9i database as part of system integration.

Achievements:

- Successfully built Entrust/TruePass transaction signing backend implementation using JBuilder4 (this included transaction log generation and saving the signed transaction into a file on the TruePass server)
- Successfully integrated the back end solution for the application using VB6
- Written a VB source code parsing tool in order to clean up an existing source
- Written VB COM+ components for the Interactive Fact Finding System (IFFS) portion of the EIAppliWeb application
- Implemented a robust application logging mechanism allowing to log application events, warnings and errors into the Event Viewer (NT/2000), text file or the Win32 OutputDebugString console.

Project: Entrust Enterprise Desktop Solutions (Entrust Desktop Designer)

Entrust Technologies is a global leader in solutions that bring trust to e-business. The company is committed to securing e-business transactions and communications over wireless networks, intranets, extranets and the Internet. Their products and services offer strategic, trusted e-business solutions and real customer value for the Business-to-Business (B2B) Business-to-Consumer (B2C) and Enterprise Internet markets. Entrust solutions offer customers reduced costs, enhanced productivity, the ability to build closer relationships with larger trading communities and faster time-to-market. Entrust Technologies makes it safe to do business over the Internet.

Responsibilities:

- Designed and developed Entrust/DesktopDesigner(TM), a new, innovative software installation customization tool for desktop administration and deployment. Entrust/DesktopDesigner(TM) allows the system Administrator to select which components of Entrust/Entrust and other desktop solutions they would like installed on the user desktop, offering the flexibility of centralized control over the desktop footprint, user interface and branding.
- Administrator selections can be pre-configured and included as part of a silent end user setup. Certain aspects and features of Entrust/DesktopDesigner(TM) were successfully filed and are being considered for a patent application with a U.S. Patent and Trademark Office.
- Creator of Entrust/UpToDate(TM) an application used to automatically update Entrust-Ready applications with minimum user interaction as soon as a new version of the software is available.
- Responsible for providing presentation-type training to technical support group about methods of deployment of PKI solutions in the enterprise environment with main focus on Entrust/DesktopDesigner, Entrust/UpToDate and Microsoft Service Management System (SMS).
- Responsible for providing innovative software deployment solutions for a wide range of Entrust products and product bundles.
- Creating sophisticated, multi-platform installation systems using industry leading WISE Installation System, InstallShield, DemoShield, Borland Delphi and Microsoft Visual Studio (VC++6.0). CD-ROM mastering and publishing using Borland Delphi 4.0 and Adaptec Easy CD Creator (shipped Entrust Enterprise Desktop Suite 4.0, EEDS 4.1, EEDS 4.2 CD, EDS 5.0 CD and EDS 5.0.1 CD).
- Responsible for providing software deployment solutions for a wide range of Entrust products and product bundles. Creating sophisticated, multi-platform installation systems using industry leading WISE Installation System, InstallShield, DemoShield, Borland's Delphi and Microsoft Visual Studio.
- CD-ROM mastering and publishing using Borland Delphi 4.0 and Adaptec Easy CD Creator (shipped Entrust Enterprise Desktop Suite 4.0, EEDS 4.1, EEDS 4.2 CD, EDS 5.0 CD and EDS 5.0.1 CD).
- Project leader in a group of 6 people, assisting in current development tasks, managing everyday progress of current projects and reporting to senior product managers. During the process of expansion trained new team members, leading them through new projects, providing guidance with difficult topics and providing programming tips and tricks.
- Resident expert on some of the tools used such as: WISE Installation System, Delphi, C++ Builder, Visual Basic.

- Created easy-to-use software wizards and implemented a powerful installation package virtually requiring no user interaction, complete with an advanced un-installation module and setup customization tool. Created a product CD-ROM browser using DELPHI 4.0

Achievements:

- Desktop Applications Deployment Team Member
- Entrust/Entelligence 6.0 Team Member
- Entrust/Express 6.0 Team Member
- Entrust Desktop Solutions 6.0 Team Member
- Entrust/Entelligence 5.0 Team Member
- Entrust/Express 5.0 Team Member
- Entrust Desktop Solutions 5.0 Team Member
- Entrust/Entelligence 4.0 Team Member
- Entrust/Express 4.0 Team Member
- Entrust Enterprise Desktop Suite 4.0 Team Member

Pronexus Incorporated

September 1995 – January 1998

Project #1: Software Designer / Developer

Pronexus is a well established company specializing in computer telephony applications, focused on world class application generator development tools and speech-enabled computer telephony solutions. Pronexus Incorporated believes in a full exploration of the potential of its employees to achieve the absolutely the best results and productivity at the same time ensuring full satisfaction from the work well done. While at Pronexus, I have been responsible for many tasks that have reflected my solid experience in those areas. Being the one who enjoys challenge I have filled the following positions while giving my best to the company:

Position:

Responsibilities:

- Designing and developing software written for VBVoice, a WINDOWS 95/NT based Telephony toolkit.
- This product was rated the finest Windows based telephony product by BYTE magazine. Application development implementing Computer Telephony Integration (CTI).
- Programming, testing and debugging of advanced Windows telephony tools for Visual Basic using MS Visual C++.
- Providing the technical support team with problem solutions, including creating sample applications for Voice and Fax support (Visual Basic - all versions, Access, MS SQL). Stress-testing of telephony hardware and newly created telephony tools in environments such as Windows95, NT3.51, NT4.0 and Windows3.X.

Achievements:

- Designed and created OO ActiveX controls using MFC in MS VC++
- Designed custom telephony applications using VISUAL BASIC (utilizing MS Access and SQL db).
- Developed multi-language support for language control module.
- Created of all VISUAL BASIC examples currently being shipped
- Excellent experience with database apps (SQL, FoxPro, ODBC in VB)
- Experience creating ActiveX controls using VB5
- Excellent experience with Borland's Delphi and C++ Builder
- Worked on a DELPHI support of our product

Pronexus Incorporated

September 1995 – January 1998

Project #2: Internet & Software Support Specialist

Responsibilities:

- Providing Internet access, including desktop Internet mail with SMTP dialup connection, setting up and maintaining Remote Access Service and Fax server for the firm. Fully in charge of the corporate web page design and publishing using MS Front Page97 & MS BackOffice (<http://www.pronexus.com>). CD-ROM mastering and publishing using Borland Delphi 2.0 and Corel CD Creator (currently shipped cd). Windows help files authoring.
- Creating sophisticated, multi-platform installation systems for telephony applications and toolkits including TAPI installations with TTS (text-to-speech) and ASR (advanced speech recognition) support (WISE Installation System, InstallShield, DemoShield). Supervision of NT Server based network, including network maintenance, voice mail implementation and network expansion.

Achievements:

- Designed and created a TechWiz, a web based, CGI driven, technical support inquiries facility for automated processing of the customers problems. This new innovation has helped to automatically update our Oracle database and improved our Technical Support service making a lot of customers very happy.
- Created a product CD-ROM browser (autorun) using DELPHI 2.0

Winshots Technologies

June 1996 – present

V.P. Software Development and Marketing

Winshots Technologies is an independent software vendor, born as computer consulting company in the early 1996. We're located in the heart of Canada's Capital, Ottawa. Originally known as Arkosoft Technologies, our company has adopted a new name to better reflect the type of business we are in. Our main focus is on software development for all 32bit+ Microsoft(R) Windows(R) platforms. We develop applications for everyday desktop use, developer tools and toolkits, system utilities as well as custom server components, solutions and applications.

Responsibilities:

- Design and development of most Winshots software solutions. Software development group management, project scheduling, forecasting. Responsible for all Winshots marketing decisions and future products plans as well as all other corporate issues affecting Winshots as a whole.
- Web development solutions for 3rd party projects, including web page design (HTML, ASP, XML) solution design and integration using VB6, COM+, ASP, .NET, web site monitoring and database design including MS SQL Server, Oracle 9i, MySQL, MS Access. More important/recent clients include: Arkosoft Technologies and Bestlane Incorporated.

Achievements:

- Author of the following Winshots products: Award winning System Snapshot, EZWebMonitor, FileZip, EditIni, KeelOS, Calendar Browser, StopWatch and System Viewer.

Innovative Communications (Kingston) Ltd.
Software Developer

June 1994 – August 1995

Responsibilities:

- Application development implementing a design of Training Development System using Visual Basic, MS Access and MS SQL. Design and implementation of database management system. Web design and publishing of the Training Master Home Page, using HoTMetaL Pro, Macromedia Dreamweaver, Adobe Photoshop and Paint Shop Pro.
- Training System development analysis using field research and cost efficiency planning. Graphical user interface design for easy to use, professional look of the Training Master. Application testing (QA/PV) and debugging.

Smart Solutions Software
Systems Programmer / Analyst

June 1993 – June 1994

Responsibilities:

- Small business system design using Visual Basic, Borland C++ for Windows, FOXPRO (2.6 for DOS) database management system. GUI and controls design. Field research combined with system analysis and planning. System efficiency estimation and planning.

APREL Laboratories, Inc.
Electronic Laboratory Assistant

November 1990 – June 1993

Responsibilities:

- Lab diagnostics of electronic instruments, measurements, data calculation and reporting. Customer service, lab equipment maintenance, data processing, software and hardware installation. Assisting with the building of Shielded Rooms used for controlled environment testing. High voltage testing of telecommunication devices such as phones, cell phones, headsets, handsets, etc.

Education:

1995 – 2001 Bachelor of Science in Computer Science degree
University of Zurich.

2000 Workplace Dynamics Certificate
Lemmex & Associates Limited, Ottawa.

1994 – 1995 Programmer/Analyst Diploma
Career Development Institute (CDI), Ottawa.

1993 – 1994 One year in the faculty of Computer Science
Carleton University, Ottawa.

1992 – 1993 OAC High School Diploma
Lisgar Collegiate Institute, Ottawa.

1990 – 1992 High School Diploma
J.S. Woodsworth Secondary School, Nepean.

1991 Artistic Design Award
J.S. Woodsworth Secondary School, Nepean.

1986 – 1990 Technical High School Diploma
Electronic High School, Poland.
Binary basis, programming in BASIC, electric repairs including home and industrial installations, electric motors design, testing; electronic lab experience, testing, analysis, repairs. Technical writing and chemistry knowledge.

Technical Skills:

SPECIALIZATION:

- SOFTWARE DESIGN & PLANNING (UML)
- APPLICATION DEVELOPMENT
- WIN32 API PROGRAMMING
- COM, COM+, ActiveX, ADO IMPLEMENTATION
- COMPUTER TELEPHONY INTEGRATION
- INTERACTIVE VOICE RESPONSE SYSTEMS
- WEB DESIGN & IMPLEMENTATION
- WEB DEVELOPMENT
- PKI INTEGRATION & CONSULTING
- WINDOWS & HTML HELP AUTHORING
- ADVANCED INSTALLATION SYSTEMS
- GRAPHICAL DESIGN & CD MASTERING
- INVENTION & PROTOTYPING

PROGRAMMING LANGUAGES:

- VISUAL C++ 1.5, 2.2, 4.0, 5.0, 6.0, C#
- VISUAL BASIC 3.0, 4.0, 5.0, 6.0, .NET
- Active Server Pages Scripting, ASP.NET
- DELPHI 1.0, 2.0, 3.0, 4.0, 5.0, 6.0(Kylrix)
- C++BUILDER 4.0, 5.0
- JBuilder 4.0
- MS SQL and Oracle
- HTML, DHTML
- JAVA (J2EE) & JAVA SCRIPT 1.1, VB SCRIPT
- FOXPRO 2.6, 3.0, 5.0
- WISE Installation System 4.0, 5.0, 6.0, 7.0, 8.0, 9.0
- WISE for Windows Installer Service 1.0, 2.0, 3.0
- InstallShield 2.0, 3.0, 5.0, DemoShield

OPERATING SYSTEMS:

- MS WINDOWS 2000, XP
- MS WINDOWS NT 4.0, NT 3.51, 3.X
- MS WINDOWS 95, OSR2, 98, ME
- UNIX, DOS, OS/2, MAC, QNX

APPLICATIONS:

- MS-OFFICE 6.0, 7.0, 8.0, 2000, XP, WORDPERFECT
- MS VISUAL STUDIO 6, VS.NET
- MS DEVELOPER STUDIO
- MS FRONT PAGE 97, 98, 2000, XP
- MACROMEDIA DREAMWEAVER 2.0, 3.0, 4.0, MX
- MACROMEDIA STUDIO MX
- ADOBE PHOTOSHOP 5.5, 6.0
- ADOBE ILLUSTRATOR 8.0
- COREL DRAW 5.0, 6.0, 7.0, 8.0, 9.0
- PAINT SHOP PRO 4.0, 5.0, 6.0, 7.0, 8.0
- SQL Navigator 4.0, ERWIN, Toad
- ClearCase, WinCvs, Visual Source Safe

References, available upon request.