Roland Hughes

(630) 205-1593 roland@logikalsolutions.com

Summary

Works on 1099 contract basis only. Will not touch AGILE/TDD/SCRUM. Collabera, APEX, K-Force and IBM reps need not contact.

Location: Herscher, IL 60941

First two decades of career spent mainly on Midrange (DEC/VAX) and Mainframe (IBM) systems developing business class solutions. Mostly using BASIC, COBOL, and PowerHouse. Past decade spent in embedded systems, mostly medical devices using C++, Linux, Qt, and Yocto. Lots of architecture and systems design work.

Author of [The Minimum You Need to Know](#) award winning technical book series.

High Level Skills

Remote Working
Embedded Systems Development
Medical Devices
Distributed Systems
Systems Architect
Application Architect
Medical Device Architect
Business Analyst
Technical Writer (award winning author)
SDLC

Technical Skills

C/C++	Qt
CopperSpice	NanoGUI
SQLite	PostgreSQL
Ubuntu/Linux	Debian packaging
Embedded Linux	Yocto/Bitbake
RPM packaging	Custom ISO creation
Docker	ARM IMX8
Git	Mercurial
OpenVMS	COBOL
RDB	Oracle
VAX BASIC	DIBOL
ACMS	IBM MQ Series
Cognos Powerhouse	

Professional Experience

[HDA Technology](#), **Remote**
C++ Medical Device Consultant, October 2021-Present

- Medical device architect. Educated first time medical device company about not using Python for calculations in diagnostic device.
- Steered them away from Qt because they couldn't afford it.
- Researched [Nuklear](#), [GuiLite](#), [Elements](#), [NanoGUI](#), and [wxWidgets](#) for use in medical device. Chose Elements for the device UI and NanoGUI for board verification after full evaluation.
- Yocto/Bitbake custom image for target deployment.
- Docker container design, architecture, and development for board verification software.
- RS-232 communications and WAV file recording.
- Wrote an immense amount of documentation for junior developers.
- C++ Embedded Linux Toradex ARM IMX8M Plus

Logikal Solutions, Herscher, IL
C++ OpenSource Coding, August 2020-Present

- Forked [Diamond text editor](#) to enhance and experiment with [CopperSpice](#).
- Added EDT keypad navigation, file backups, Artistic Style integration, support for themes, and other nice features.
- Created Debian and RPM packaging scripts as well as packages.

Logikal Solutions, Herscher, IL
Author, August 2019-August 2020

- Completed and released *[The Minimum You Need to Know About the Phallus of AGILE](#)*.
- Wrote *The Minimum You need to Know About GUI Emacs*. The book is currently awaiting professional editing.
- Began writing *The Minimum You Need to Know About GnuCOBOL*. Searching for a descent COBOL editor on the PC is what lead to the Emacs book.

[Ximedica](#), Plymouth, MN
C++ Qt Consultant, January 2019-August 2019

- Medical device architect – infusion pump for B. Braun. ISO 13485 client.
- Converted QML mock-up to functioning product using C++/Qt for all critical UI components leading back to the actual pump logic.
- Bifrucated UI from actual data and functionality.
- Used Ubuntu and Qt 5.12 commercial. [Surround SCM](#) for source management.

[Digitas](#), Chicago, IL
C++ Qt and Debian Packaging Consultant, October 2018-December 2018

- Returned to division of [Publicis Groupe](#) to redevelop IPOS. This is an "Explore this computer" retail kiosk application INTEL provides retailers.
- C++ QtWebEngine programming for custom browser used in kiosk. Git used for source management.
- Dynamically customizable Debian package for IPOS as well as a dynamically customizable Ubuntu ISO. This allowed for custom in-store advertisements and marketing.

Logikal Solutions, Herscher, IL
Author, June 2018-October 2018

- Continued writing and obtaining professional editing on *The Minimum You Need to Know About the Phallus of AGILE*.

[RADIAN](#), **Remote**
OpenVMS Consultant, February 2018-June 2018

- Wrote utility to catch OPCOM messages and forward in RFC5424 message format to remote logging service via both secured IP and TLS.
- C programming on OpenVMS. CMS used for source code management.

Logikal Solutions, Herscher, IL
Author, October 2016-February 2018

- Began writing *The Minimum You need to Know About the Phallus of AGILE*. This is a collection of essays on the history of IT as lived by myself and one other spanning from the 1960s to present day. It attempts to explain why things are the way they are. Why Waterfall SDLC is software engineering and AGILE is just the latest catchy name for "hacking on the fly."

[Controltech Corp](#), Bondurant, IA
C++ Qt Consultant, September 2016-October 2016

- C++Qt QML project developing embedded Linux target using commercial Qt 5.4 on iMX6 for a livestock building automation control system. Git used for source code management.
- Ported history tracking and graphing system to SQLite from a fatally designed directory tree of JSON files.
- Rewrote graphing so it performed much quicker and more accurately using threads for database activity.
- Wrote memory monitor so we could track and fix memory leaks. Monitor emitted a low memory signal so application could gracefully shut down and hardware watchdog could restart.
- Updated and created developer Wiki pages.

Logikal Solutions, Herscher, IL
Web development, June 2016-August 2016

- Re-developed and linked all book Web sites into single cohesive look & feel instead of some titles having their own site and others grouped together.
- Actively helped my own titles and other authors with marketing by participating in [Interesting Authors Blog](#).

[The Wittern Group](#), Clive, IA
C++ Qt Consultant, January 2016-May 2016

- Qt 5.5 OpenSource targeting custom embedded Linux on Raspberry Pi using both serial and network communications. Data stored locally in SQLite database.
- Architected changing vending machine from single board to two board design so Raspberry Pi could run the touchscreen user interface and exiting board could run coils, coolers, freezers, etc.

Logikal Solutions, Herscher, IL
Author, September 2015-January 2016

- Converted *The Minimum You Need to Know About Qt and Databases* from eBook to print title.
- Converted *The Minimum You Need to Know About Mono and Qt* from eBook to print title.
- Established Interesting Authors Blog with a group of authors.

[Leo Burnett](#), Chicago, IL
C++ Qt and Debian Packaging Consultant, June 2015-September 2015

- Developed the Linux version of IPOS for a division of [Publicis Groupe](#). This is an "Explore this computer" retail kiosk application INTEL provides retailers.
- C++ QtWebEngine programming for custom browser used in kiosk.
- Dynamically customizable Debian package for IPOS as well as a dynamically customizable Ubuntu ISO. This allowed for custom in-store advertisements and marketing.

Logikal Solutions, Herscher, IL
Author, February 2015-June 2015

- Pursued various writing projects that have yet to become books. Most notable of these was attempted sequel to [John Smith – Last Known Survivor of the Microsoft Wars](#).

[Cincinnati Test Systems](#), **Remote**
C++ Qt Consultant, August 2014-February 2015

- C++ Qt enhancements to [Blackbelt Pro](#) pressure and leak test system.
- Linux Mint 13, SQLite, Qt 4.8.x OpenSource, Bitbake on an ARM processor. Both serial and TCP/IP real time communications with significant threading. SVN used for source code management.

Welch Allyn, Beaverton, OR
Qt Consultant, December 2013-August 2014

- C++ Qt touchscreen development for Connex® Spot Monitor patient monitoring device. ISO 1348 certified client. Some locations ISO 9001. Team Foundation Server used for source management.
- Real-time COOA messaging serialized for transmission through central message queue then deserialized by each receiver. Target was running BitBake custom Linux on ARM processor.

Logikal Solutions, Herscher, IL
Author, August 2013-December 2013

- Created *John Smith – Last Known Survivor of the Microsoft Wars* audio and eBook versions.
- Wrote *Lesedi – The Greatest Lie Ever Told*.

Cincinnati Test Systems, Harrison, OH
C++ Qt Consultant, October 2012-July 2013

- Blackbelt Pro pressure and leak testing system. Replaced CAN system with Qt on OpenEmbedded communicating to RTOS via multicast UDP.
- Linux Mint 13, SQLite, Qt 4.8.x OpenSource, Bitbake on ARM processor. Both serial and TCP/IP real-time communications with significant Qt threading and socket communication. SVN used for source management.

IPGhoster, **Remote**
C++ Qt Consultant, June 2012-October 2012

- Product for real-time communications security. Allows customer to change IP address via database of proxy servers so they can appear to be in a different country and/or city. It allows you to visit a Web site in a country blocked by or blocking yours.
- Performed Business Analyst, Systems Architect, and developer roles because this was a small start-up.
- Heavy Qt threading and lots of performance improvements so we wouldn't quickly drain batteries of laptops and phones. Development on Ubuntu Linux followed by Windows. Git for code management.
- Multiple encryption protocols utilizing book code so that no two packets used same encryption across transmission.

The Concept Factory, Detroit, MI
C++ Qt Consultant, March 2012-May 2012

- A startup company that ran out of funding pursuing too many things at once. First project was for Wolf oven. Second project was dash replacement software for Chrysler using CAN-BUS real-time communications over Bluetooth. Also used serial over Bluetooth.
- Embedded touchscreen development using C++ and Qt on embedded Linux.
- SVN used for code management.

Logikal Solutions, Herscher, IL
Author, May 2010-November 2011

- Wrote *The Minimum You Need to Know About Mono and Qt* using OpenSuSE Linux, Mono, Qt, PostgreSQL, MySQL.
- Wrote *Infinite Exposure*.
- Wrote *John Smith – Last Known Survivor of the Microsoft Wars*.

RC Olmstead, Dublin, OH
DIBOL Consultant, February 2010-April 2010

- Converted DIBOL applications on OpenVMS to Synergy/DE with xfServer to expose business logic to Visual Basic GUI. Tis was a prototype project so they could see if that was the way they wanted to go when creating the GUI.
- Converted the Teller Workstation portion of the credit union application. This system runs many credit unions across the country.
- Had to coordinate with off-shore teams while doing development.

Logikal Solutions, Herscher, IL
Author, January 2009-January 2010

- Wrote *The Minimum You Need to Know About Java and xBaseJ*.
- Provided patches to the xBaseJ project so the demonstration application could be complete.
- PDF of book donated to xBaseJ OpenSource project.
- Created Fuel Surcharge OpenSource project using xBaseJ and Java.

Navistar, Warrenville, IL
Business/Technical Analyst, February 2008-July 2008

- Business Analyst – STAR (Standards for Technology in Automotive Retail) XML BOD specifications. Also wrote SDLC documentation in support of analysis.
- Technical Analyst – TOLAS/PRIDE EDI modifications for parts supply chain. OpenVMS, DEC BASIC, Java, MQ Series, Message Broker, Websphere, ACMS, Cognos Powerhouse, Oracle, and RDB. CMS for source management.
- Actively participated in the STAR standards committee.

Logikal Solutions, Herscher, IL
Author, November 2007-February 2008

- Finished publishing *The Minimum You Need to Know About Service Oriented Architecture*. Java, OpenVMS, ACMS, TCP/IP services covered/used in the book.
- Created XpnsQt OpenSource project.

Navistar, Warrenville, IL
Business Analyst and Architect, May 2007-November 2007

- Business Analyst – provided system design and project management services interfacing the parts supply chain OpenVMS ACMS real-time services to Web services via SOAP and XML over MQ Series along with other projects supporting the parts supply chain run by TOLAS.
- Wrote SDLC documentation for SOX compliance.
- STAR standards meetings and BOD (Business Object Document) creation.
- Business Architect – wrote work initiation document and early SDLC for parts ordering Web site to sell parts directly to the public routing sales through nearest local dealers. This system was actually implemented several years later.

Logikal Solutions, Herscher, IL
Author, January 2007-May 2007

- Wrote *The Minimum You Need to Know About Service Oriented Architecture*.
- Covers use of ACMS and java to create cluster wide fault tolerant applications. Also used BASIC, COBOL, C/C++, and FORTRAN.

H&R Block, Dublin, OH
OpenVMS Consultant, August 2006-January 2007

- Mercury Quality Center, C/C++, Java, OpenVMS, DCL, MMS, CMS, FMS, and Perl used while modifying the electronic income tax filing system.

Logikal Solutions, Herscher, IL
Author, March 2006-July 2006

- Wrote and published *The Minimum You need to Know About logic to Work in IT*.

H&R Block, Dublin, OH
OpenVMS Consultant, September 2005-March 2006

- Mercury Quality Center, C/C++, Java, OpenVMS, DCL, MMS, CMS, FMS, and Perl used while modifying the electronic income tax filing system.

Logikal Solutions, Herscher, IL
Author, March 2004-September 2005

- Wrote *The Minimum You Need to Know to Be an OpenVMS Application Developer*.
- Book covers the crucial definitions of the VAX/Alpha VMS operating system. Historical reasons for things existing at client sites the way they do. Book is designed to take a decent developer from another platform and let them become functional on VMS in a very short period of time.
- DCL, DEC BASIC, CMS/MMS, FORTRAN, FMS, DEC C/C++, DEC COBOL, RDB, and MySQL were tools used in the book.
- Wrote *The Minimum You Need to Know About java on OpenVMS*.

Navistar, Warrenville, IL
OpenVMS Consultant, May 2001-March 2004

- DIA (Dealer Inventory Alliance) project. Parts supply chain project for vendor managed inventory interfacing to five different BSV (Business System Vendors) systems at hundreds of dealers around the world.

- DEC/VAX C/C++, ACMS, MQ Series, TOLAS, Cognos Powerhouse, RDB, CDD, MMS, PL/SQL, XML, Pro*C, and Oracle 8i were the tools used.
- The combination of ACMS and MQ provided guaranteed delivery and processing of all transactions, both delayed and real-time.
- Parsing of XML done with Xerces library on VMS.

Various
OpenVMS Consultant, March 1985-May 2001

- Various PC and DEC/VAX clients and employers. LIOCS, Crescent Counties Foundation for Medical care, Navistar, Chicago Stock Exchange, McKee Door, Caremark Homecare Edgewater Medical, The Pampered Chef. Some I worked at multiple times.
- Technologies included IBM Mainframe COBOL, BAX BASIC, VAX C, GRID PAD pen DOS, RSTS/E, RT-11, and BASIC PLUSS II. Zortech, Watcom, and CodeWarrior were some of the PC based C/C++ compilers used.
- LIOCS Perspective series ERP, CYBORG Payroll system, VG LIMS, MAXCIM accounting system.
- Wrote three titles in the "Zinc It!" book series for Burke Publishing.

Education

DeVry, Lombard, IL
B.S. C.I.S., 1987

Kankakee Community College, Kankakee, IL
A.S. Business Oriented Computer Programming, 1985