

# Michael Ponti

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email: michael.ponti@live.ca

cel: 1.604.738.6453

## Experience

### Senior Advanced Software Engineer Honeywell (North Vancouver BC 2017 - Present)

Large multi-national corporation engaged in a wide variety of business. The North Vancouver facility is focused in custom engineered and manufacture of high technology sheet industry machinery. The facility also has a sizable software development team focused on cloud software for the sheet and process industries.

- Security: Security Advocate for Versatilis, Connected QCS and the Application Validation Tool. Completed multiple reviews for each of these products. This involves ensuring the above products are designed and deployed according to the Honeywell SDLC and working with customers to ensure that their security concerns are met.
- Connected QCS4.0: This involved working on modernizing infrastructure and code to stay up to date with latest infrastructure and code. Architect for new data pipeline to support customers that do not permit the external devices that normally push devices from the customer to the Honeywell cloud.
- Versatilis: Lead architect for software that manages the life cycle of process plant hardware. All back-end work developed using ASP.NET Core with Mongo storage. All front-end work developed using React. All software deployed on Azure using managed services.
- React Native mobile POC app that used bluetooth for configuring Honeywell process instruments.
- Lead architect for Production engineering tools, web apps, CAD add-ins etc to new SAP instance.

### CAD Specialist/Engineering Systems Coordinator - Honeywell (North Vancouver BC Jul 1993 - 2016)

- (~1994) Integrate AutoCAD with exported data from HP3000, eliminate rework from engineers, enable electronic searching of parts used in product design. Used AutoLisp, Access.
- (~1995) Create an electronic timecard app for direct entry into HP3000 ERP. Eliminate re-entry of data from paper forms. Used Vb3/5.
- (~1995) Create a workflow application for managing the process of creating and revising standard parts. Workflow was enforced, direct entry into HP3000. Removed data re-entry. Used VB, SQLAnywhere, ODBC.
- (~1996) Eliminate Access from AutoCAD link by rewriting in C++ to connect AutoCAD and SQLAnywhere server. Faster access, all users worked from the same data. Used Visual C++, ODBC, SQLAnywhere.
- (~1997) Create AutoCAD add-in that collected bill of materials from drawings and upload to SQLAnywhere. A separate program collated and exploded all the BOM's for a job and uploaded to HP3000 ERP. Used Visual C++, VB, ODBC, SQLAnywhere.
- (~1998) Install new Windows Server for Engineering to replace Novell Netware Server.
- (~1999) Team member selecting Y2K safe server.
- Lead migration of data from HP3000 ERP to Visual Manufacturing, including all part and supporting data (units of measure, warehouses, purchasing units, etc), standard part BOM's, work in progress on

the factory floor, vendors, vendor quotes, etc.

- Migrated existing tools that linked to HP3000 to link to Visual Manufacturing including all of the CAD tools and the BOM uploading.
- Mentored developer tasked with migrating workflow application.
- Creation of production tool that allows ISC to load standard part BOM's, find the associated drawings and print out those drawings for the necessary manufacturing departments as specified by shop manager. This information was saved so that it was available the next time the BOM was loaded. Used C#, Oracle.
- Create a CAD drawing release system that allowed users to release and approve job drawings from engineering to supply chain. Drawing release was initiated in CAD. Approval was over a web app. Viewing and printing of drawings by downstream users available via web app. Used AutoCAD, Inventor, C#, Oracle, ASP.NET, dwf, Visual C++.
- Update of BOM upload software to allow for enhanced uploads to ERP. Used Oracle, ASP.NET, Visual C++.
- Update CAD ERP integrations for every new version of AutoCAD and Inventor.
- Implemented Vaulting solution for technical documentation department.
- Responsible for the transition of the part management process from Cupertino to Vancouver
- Responsible for developing process schema and migrating BC35 software issues database to Clearquest.
- Responsible for developing process schema and migrating BC35 hardware issues database to Clearquest.
- Member of team responsible for developing and maintaining global software tools.
- Developed integration between Clearquest and SAP. Used ASP.NET MVC and C++.
- Responsible for migrating POMS software group data from their legacy ClearCase/Clearquest installation to the corporate standard while maintaining pharma-industry regulated connections between issues and source code.
- Install and maintain local Jira, BitBucket, FishEye, Crucible implementation.
- Create a desktop ERP viewing application that is used across the P3 organization. Used C#, ASP.NET MVC API, Oracle, Sql Server.
- Creation and implementation of a new change management system to replace legacy system. Includes links to and from ERP. Used Autodesk Vault Pro, C#, Oracle, ASP.NET Core, Sql Server.
- Create web app for managing Autodesk support and installation media. Web app is setup to automatically compile and deploy to local IIS when a code check in occurs. Used ASP.NET Core and Azure Dev Ops.
- Create software that setup import files for moving from ClearQuest to Jira.
- Create web app that views legacy Clearquest data. Used Honeywell Forge, React, ASP.NET Core, Sql Server.
- Update the ERP Viewer app for improved remote file viewing, and interactive 3D model viewing. Used Honeywell Forge, React, ASP.NET Core, C#, Oracle, Sql Server, Autodesk Forge API's.
- Create web app to more easily view the changes coming out of the new change management process. Used Angular 5, ASP.NET Core, C#
- Create web app used by ISC to manage their workflow. Used Honeywell Forge, React, ASP.NET Core, C#
- Tech lead for moving internal workflow applications from current Visual Manufacturing ERP to SAP. Includes integrating CAD and Vault.

General Day to Day

- All Engineering CAD and IT desktop support
- All Building IT desktop support
- Manage Windows server domain
- Manage Plotters and Printers
- Standard part management workflow process

## CAD Manager - PBK Consulting Ltd (Vancouver BC Nov 1990 - Jul 1993)

PBK Engineering is multi-discipline consulting engineering firm responsible for the design and management of a variety of projects ranging from airports to bridges to manufacturing facilities. Responsible for developing productivity software enabling designers to work more efficiently and effectively.

- Designed and developed an AutoCAD front-end that tracked time and organized drawings by department and project. The custom front-end also managed the creation and editing of drawings so that client/project specific standards and title blocks could be used with minimal user interaction. Developed using C++ and AutoLISP.
- Designed and developed an AutoCAD front-end to automate plotting for the company's AutoCAD users. Users submit plot jobs from within AutoCAD and the software performs the plotting and charges the time to the appropriate project. Developed using C++ and AutoLISP.
- Created 3D models of buildings and industrial machinery for design and presentation purposes.
- Installed and deployed a Novell Netware network, migrating workstations and running cable for the individual workstations.

## CAD Manager - Kokums Cancar (Surrey BC Sep 1988 - Nov 1990)

Kockums Cancar was a sawmill Equipment manufacturer that specialized in automating the manufacturing of lumber from raw logs.

- Developed a drawing archive and retrieval system using C and C-shell programs implemented on a Sun386i workstation and WORM drive.
- Developed CAD standards and procedures for multiple disciplines while laying the groundwork for hooks into a future CAM system.
- Developed general CAD utilities to improve drafting performance and efficiency.
- Provided troubleshooting support and in-house training for CAD users.

## Other Experience

### Independent Publisher at Autodesk App Store

Independent developer doing end to end publishing of small applications in the Autodesk App Store. This includes concept, development, testing, deploy, documentation, support and maintenance.

- **Sketch Block Manager:** Inventor utility to use sketch blocks that are stored in centrally located files to quickly and easily add them to your sketch.
- **Your BOM Tools:** Utility to export bills of material from Inventor using your own format.

- **Mega Make Components:** Inventor utility that will export surface bodies in your part to separate components.
- **Properdizer:** Inventor utility that allows individual and batch editing of properties anywhere within the loaded assembly.
- **Parts List Editor:** Inventor utility that allows editing of the data that drives the parts list data at the source of the data.
- **PLM360 Attach:** From Inventor, access an Autodesk PLM360 and associate the model with an item in the tenant.
- **PLM360 Attach Design:** From AutoCAD, access an Autodesk PLM360 and associate the model with an item in the tenant.

## Open Source Contributions

Contribute to the Prism open source library by updating all of their WPF documentation to reflect the current release. Prism is a framework for building applications with an extensible and maintainable architecture. It has over two million downloads from the nuget package manager.

## Public Speaking

### **Windows Platform Developer Group Vancouver Meetup: June 26, 2019**

- Presented on using Azure IoT and Azure SignalR to provide real-time communications between a raspberry pi and a web application.
- Demonstrated the use of the Autodesk Forge Viewer

### **Forge DevCon (Autodesk University): Las Vegas November 12, 2018**

- Presented techniques on using Autodesk Cloud Platform Forge Viewer in a disconnected mode.

### **Windows Platform Developer Group: Vancouver Meetup: May 25, 2017**

- Presented on how to use the Prism Library with Xamarin Forms to create a modular, extensible, maintainable mobile app.

### **Windows Platform Developer Group: Vancouver Meetup: May 26, 2016**

- Presented on how to use the Prism Library with the Universal Windows Platform to create a modular, extensible and maintainable app.

## Education

Bachelors (with honors)

Computer Software Engineering British Columbia Institute of Technology 2003

Associate Degree/2 Year Degree

CAD Engineering British Columbia Institute of Technology 1988

## Awards

2023 HPS Premier Achievement Award - Innovation of the Year

Awarded for work on the Versatilis Lifecycle and Insights Apps.

2022 Vancouver Systems Team Recognition

Awarded for work bringing SAP to production at the Vancouver location.

Honeywell Vancouver MacGyver Award - Apr 2021

Annual award in Vancouver Engineering that goes to the person that shows a willingness to get things done despite the obstacles.

Autodesk University Forge Hackathon - Nov 2020

Over the course of a few days vacation, I built up an app that links live Vancouver ERP data with 3d models viewed inside of Autodesk Forge viewer. Competed with over a hundred teams globally, was recognized as a finalist in Data Visualization.

Autodesk Developer Network Hackathon - May 2015

Competed against several dozen teams globally over the course of a weekend. Built up an app that runs inside of Autodesk Inventor and hooks up the geometry data with users's part meta data hosted inside of Autodesk cloud PLM.

## Volunteer

North Shore Riding Society Ride Leader/Director of Communications/Schedule Coordinator (North Vancouver 2007 - 2018)

A not-for-profit society that brings mountain bikers from the lower mainland of all levels for group rides. Duties include providing leadership to riders to ride in safe and sustainable manner and ensure an inclusive and fun experience. In charge of maintaining the website, general communications and marketing collateral.

ALS Adventure Challenge - Ride Leader (North Vancouver 2005 - 2008)

Provided mountain bike instruction for new riders participating in the ALS Adventure Challenge race. The race was to raise money for ALS society. Duties were to provide new riders with technical instruction on biking and make it fun so they would return.

Pedals and Pints - Ride Leader (North Vancouver 2004 – 2006)

Performed ride leading for groups of mountain bikers in North Vancouver. Principal duty was to provide a safe and inclusive experience for all riders that came out so that they would become enthused about riding.

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