

Curriculum Vitae

Philip Van Hoof

Consultant – software developer

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Personalia			
Nationality	Belgian	Gender	Male
Birthday	June 18, 1981		

Languages			
	Very Good	Good	Notions
Dutch	Mother Tongue		
English	+		
French			+
German			+

Education	
Year 2023	Training Modern C++
Year 2013	.NET courses: WPF, Prism4, MVVM, WCF
Year 2012	.NET courses: WCF, WPF, ASP.NET AJAX w. jQuery
Year 2007	Company management FOD Economie, K.M.O, Middenstand en Energie
Years 2001 - 2004	Informatics Horito – Turnhout
Years 1996 - 2000	Informatics TSO KTA-De Merodelei – Turnhout
Before 1996	Electromechanica TSO VTST – Turnhout

Sport and hobbies	
Recreational diving	PADI Open Water diver (August 2011) PADI Advanced Open Water Diver (August 2011) PADI Rescue Diver - 1409EW7988 (August 2014) PADI Dive master – ongoing

Courses / trainings	
.NET	<p>Windows Communication Foundation</p> <ul style="list-style-type: none"> • 6663: Implementing Transactions in WCF • 6662: Implementing Security for WCF services • 6661: Improving the Performance of WCF services • 6660: Managing WCF Service Instances and Concurrency • 6659: Handling Errors by Using WCF • 6658: Designing and defining contracts for WCF services • 6657: Debugging and diagnostics in WCF services • 6656: Managing endpoints and behaviours by using WCF • 6655: Configuring and Hosting WCF services • 6654: Introduction to WCF <p>Implementing ASP.NET AJAX, using jQuery Library</p>
C++	<p>Modern C++ by Nicolai M. Josuttis</p> <ul style="list-style-type: none"> • std::vector<> and iterating over elements • auto and Range-Based for Loop • Initialization • Move Semantics • Special Member Functions I • Value Categories • Perfect Forwarding and Universal References • Moved-from States • Templates • Variadic Templates • Modern C++ Compile-Time Features • constexpr • Inheritance and Polymorphism • Slicing • Memory Management and Placement New • Polymorphism and Heap Memory • RAI • Shared Pointers • Unique Pointers • C++17: Variant

Knowledge summary	
Specialisations, prog. languages	.NET: Visual C#, Webservices, WCF, WPF (XAML, MVVM, Prism4), Compact Framework.NET, WinForms, NHibernate, Spring.NET, Mono, MonoTouch; Design patterns, Scrum, Scrum works Pro, DBC, unit testing; C, C++, STL C++, Qt C++, libc, POSIX, Visual C++, D, Vala, Linux Kernel Development, Motorola 68332 assembler, GLib / GObject, GNOME, Qt, QML, OpenSSL, Boost, gSOAP, Qt Mobile, Python, PHP, Perl.
Development environments	I have worked with Microsoft .NET Framework since 1.0, .NET Compact Framework, .NET 2.0, 3.5 and 4.x using Visual Studio 2003 / 2005 / 2008 / 2010. I used WPF with MVVM in a Prism4-project calling WCF. I used Visual C++ and Visual Basic 5 & 6, Delphi 3.0, 4.0 and 5.0. And I used Anjuta, KDevelop, QtCreator, Eclipse and MonoDevelop; I'm an expert with Autotools, Automake and the GNU Compiler Collection, but also with Qt's cmake and qmake.
Databases	SQLite, MS-Access, SQL Server 2000/2005/Mobile/2005 Express, Oracle 9i/10g, PostgreSQL, MySQL, DB2, Pervasive SQL
Operating systems	Windows 95, XP to Vista and 7, Windows 2000 server, Windows 2003 server, Windows CE 4.20 & 5.0 and Windows Mobile 6, Windows Phone 7; Linux Fedora, RedHat Enterprise, CentOS, SuSe, Ubuntu, Sun. Solaris, FreeBSD, Debian, OpenEmbedded.

Heidenhain for YER – freelance daytime	
Period	September 2015 – ongoing
Project	Controller software for CNC lathes, drilling and milling machines. Development on and design of the architecture of the user interface component for milling-turning, HSC and 5-axis machining using modern C++ Qt techniques and design patterns. Also installation and maintenance of a Jenkins continuous integration environment, techlead role on a variety of stories and epics. Project ongoing. Updates and more info will be added soon.
Technologies	Qt C++, QML, a MVVM design, mmap, RT Linux kernel, HEROS5, Jenkins, ClearCase, gitcc ClearCase - git bridge, JIRA, Scrum agile

Meteringbox.be – freelance weekend and evening

Period	May 2015
Project	Development of a electricity metering device for monitoring electrical devices' power consumption and heat production (a so called Internet of Things appliance, if you like that phrase).
Technologies	Linux embedded development, C, Makefile

Jolla Cy – freelance weekend and evening

Period	November 2013 – December 2014
Project	Development of a mobile metadata search engine called Tracker. This is the file metadata indexing system used on the Jolla phone (http://jolla.com).
Public source code	https://github.com/pvanhoof/tracker/ , https://github.com/nemomobile-packages/tracker https://git.gnome.org/browse/tracker/
Technologies	systemd, Linux embedded development, SQLite, SPARQL, Nepomuk, Dbus, C with GLib and GObject, C++ with Qt, QML, Vala, autotools, Python.

Softathome – freelance

Period	June 2013
Project	A customized training on the project that I worked on at Nokia: Tracker, its SPARQL endpoint, Nepomuk and the standard indexers like the file system miner of Tracker. Softathome has and/or had an interest in starting to use this open source project for one of their embedded appliances.

ProDATA for NEXIOS IT – freelance daytime (second project)

Period	June 2013 – August 2015
Project	Back office software development on the MobiGuider De Lijn, ReTiBo and Arriva projects. Using C#, WPF MVVM (Prism4 style), Roundhouse, Unity, XAML, Devart, Oracle, NServiceBus, RavenDB, LINQ, Entity Framework and WCF.
Project	Project OS platform and Frontoffice: Platform and OS architecture

	using systemd's nspawn lightweight containers and Linux kernel namespaces to allow for a live upgrade with rollback snapshot capabilities on upgrade failure.
Project	Release maintainer and trainer on semver.org, gitflow version control with git. Packaging using Wix, MSBuild, MSDeploy, TeamCity and MSI. Development of fully unattended installations. On site installations and support at De Lijn.
References	Tim Van Wassenhove (+32 2 306 1073), Scrum master Mitch Van Helden (Mitch.Vanhelden@delijn.be), responsible software installations at De Lijn

Delta Engineering for Eduvision – freelance

Period	March 2013 – April 2013
Project	a customized training to Delta's senior developers on Qt C++ topics they want to use for development of bottle conveyors. Techniques in Qt we focused on where QMake, CMake, Qt Creator, Logging, debugging (with gdb, gdbserver and Qt Creator), Signals & Slots, Socket programming, D-Bus and message based IPC for service oriented architecture in general. Overlap with OPTION as the trainings were given during the weekends.

OPTION for Aston Carter – freelance

Period	February 2013 – May 2013
Project	Embedded C on Linux OpenWRT for CloudGate M2M router. Software development on GloudGate WWAN M2M IP gateway (3G, Ethernet, Wifi and extension boards). Kernel development on Linux 2.6 and 3.2 driver for Gobi Qualcomm's 3G modem. Development on a SDK for making the M2M IP gateway programmable to third party developers. Perl language binding generator for the C based SDK for OPTION's validation team using Lex & Yacc. Valgrinding and FD leak hunting Qualcomm's C++ Gobi connection manager library.
Technologies	Linux 2.6.35, OpenWRT, C, Perl
References	Jan Dumon < j.dumon@option.com >, Technical lead and Scrum master on GloudGate (works at Soft@Home nowadays)

Vanerum Group – freelance	
Period	November 2012 – January 2013
Project	Analysis screenmirroring with Apple iPad, Windows tablets and Android for i3Connect
Project	QBix signage and display software that uses a MVVM architecture with Qt (command pattern for undo/redo, view with QGui, QGraphicsItem, view-model with QAbstractItemModels, etc). Electronic schoolboards and integration with Android and iOS/iPAD based tablet computers. Qt / C++, libraries of Calligra office suite, MonoTouch, Dalvik and Obj-C development. I also work(ed) from time to time on feature request in the weekends. One of the projects was to add support for Excel files, using Calligra's Sheets QGraphicsItem component, to the signaling and display software Q-Bix (available at http://www.qbixsignage.be).
Technologies	C++ with Qt on Windows and Linux, Dalvik on Android, Obj-C on iOS, MonoTouch .NET, Calligra office suite components library
References	Alex Nan < alex.nan@vanerumgroup.com >, Global Product Manager

ProDATA for NEXIOS IT – freelance (first project)	
Period	April 2012 – October 2012
Project	MobiGuider: Development of a mobile user interface 'mechanics-console' for maintenance work and configuration for and of public transportation vehicles in Belgium and the Netherlands
Project	Porting OpenSSL, Boost C++ and gSOAP to Windows Mobile 6 using STLPort and WCE compat.
Technologies	C++ with Qt mobile on WinCE and on Linux open-embedded (both platforms) using Visual Studio 2008 and QtCreator; QML; WinCE's Win32 API; POSIX C; Working with hardware GPIO in software on Linux and WinCE 5.0; Qt's build environment to build a smaller Qt for WinCE; systemd for fast startup of Linux systems; TCP/IP socket programming; porting to WinCE of OpenSSL, STLPort, Boost and gSOAP, gSOAP, Boost C++, STL C++, development of a GPS simulator in .NET on Windows and with Mono to run it on Linux.

References	Benny.Schaeken@prodatamobility.com , CTO ProDATA Mobility Stephan.Geysmans@prodatamobility.com , project manager Jan.Paesmans@gmail.com OS architect, +32494418996
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Nokia – freelance (second project)	
Period	February 2008 – March 2012
Project	<p>Development of a mobile metadata search engine called Tracker. This is the content framework used on the Nokia N9 and Nokia N900.</p> <p>Lengthy description with a lot of details of my work at Nokia is available on request.</p>
Technologies	Linux embedded application development, SQLite, SPARQL, Nepomuk, Dbus, C with GLib and GObject, C++ with Qt, Vala, autotools, Python, Scratchbox, Maemo & MeeGo Harmattan
References	<p>Ivan Frade (ivan.frade@nokia.com), project manager</p> <p>Javier Fernandez Hidalgo (Javier.Fernandez-Hidalgo@nokia.com), project manager</p> <p>Urho Konttori (urho.konttori@nokia.com), project manager</p> <p>Jürg Billeter (j@bitron.ch), (really good) software developer</p>

Clock-O-Matic for TASS – freelance	
Period	May 2008 and November 2011 (on holidays of Nokia projects)
Project	Training developers to implement a application with real time requirements on openembedded Linux
Worked with	Gerrit Van Elst < Gerrit.Van.Elst@clock-o-matic.com >

Alstom – freelance	
Period	November 2007 – February 2008 (in-between Nokia projects)
Project	Development of an embedded system MP82 to drive power electronics of the tram in Mexico city. I developed the code that makes the tram stop and reduces energy usage in steps.
Technologies	Motorola assembler, C, Motorola 68332 microcontroller

Nokia – freelance (first project)	
Periods	February 2008 – March 2008 (transition to a new Nokia project) January 2007 – December 2007 January 2006 – December 2006 (parttime)
Project	Development of a mail user agent for mobile & embedded Linux http://tinymail.org , http://modest.garage.maemo.org Lengthy description with a lot of details of my work at Nokia is available on request or ask Dirk-Jan Binnema who managed me at Nokia.
Technologies	Linux embedded application development, C, GLib, GObject, Gtk+, check unit testing, Evolution data server, autotools, Network Manager, Scratchbox, Maemo Fremantle
References	Dirk-Jan Binnema (dirk.jan-binnema@nokia.com), project manager Sergio Villar Senin (svillar@igalia.com), software developer

INTAS – consultant at Cronos	
Period	March 2004 – June 2004
Tasks	Development of an intranet web application
Technologies	ASP.Net, ASP.NET Webservices, SQL Server, Win 2000 Server, Spring.NET, NHibernate

Opel Belgium – consultant at Cronos	
Period	May 2007
Project	Development of a Winforms application on a Psion Techlogix ruggedized device
Technologies	C#, Winforms, Compact Framework .NET, WinCE, Psion Techlogix, Microsoft SQL Server, Microsoft SQL Server CE

DDM – consultant at Cronos	
Period	March 2007 – May 2007
Project	Development of P/Invoke adapter library that allows a team of Visual C# developers to call a C++ API supplied by a device manufacturer of a device used by the solution
Technologies	Visual C#, .NET's P/Invoke interoperability, C++, MFC, OLE, COM

Alcatel-Lucent – consultant at Cronos	
Period	October 2006 – May 2007
First project	Development of a user interface, Development of an extension for energy cards for existing Belgian phonebooth capabilities
Second project	Development of an extension for energy cards for existing Belgian phonebooth capabilities
Technologies	Solaris 2.6 and 9, SPARC, Sun Workshop, Solstice, C++, autotools & automake, libglade 2.0, Gtk+, Oracle, PL/SQL

Promatic – consultant at Cronos	
Period	October 2005 – December 2005
Project	Development of WinForms .NET applications
Technologies	Visual C#, VB.NET, Winforms, WVC, Windows XP, Windows 2003 server, Microsoft SQL Server, NHibernate

Newtec Cy – two projects – consultant at Cronos	
Period	January 2006 – September 2006
First project	Development of satellite communication software for Newtec's SAT3PLAY for TCP/IP over satellite
Tasks	Development of a packet reassembly kernel module using Click. Reordering ATM cells using their NCR timestamp.
Technologies	C and C++ for Click's specifics, Linux 2.6 kernel development, CentOS, Click, autotools
Second project	Development of satellite communication software for Newtec's

	SATMODE system for interactive television. Development on SATMODE's HUB software (at the logical link control layer, LLC or LCL, of the OSI, open systems interconnections, model).
Technologies	Linux 2.4 kernel and porting to 2.6 kernel, Suse and CentOS, C, C++, autotools
Worked with	Wouter Cloetens (zombie@e2big.org) on both projects, Works at Soft@Home nowadays

Maia Scientific – multiple projects – consultant at Cronos

Period	July 2004 – August 2005
First project	Scientific embedded microscope project
Tasks	Development of a control panel using Gtk+, CORBA and putting in place a autotools build environment for the existing and new project code.
Technologies	Glib-2, CORBA (Orbit-2), Gtk+, Glade, libXML, x86 assembler, Linux Kernel Module development 2.4 & 2.6, SCIL-IMAGE 2.0, RedHat 8, Fedora Core 3
Second project	Porting of Linux device drivers, kernel development
	Porting and fixing of the Linux kernel 2.4 driver for the Flashbus MV PRO and Spectrim framegrabbers by Integraltech to Linux 2.6. The fixes got integrated by Integraltech (but unfortunately I lost track of the Linux 2.6 port's status).
Technologies	Linux kernel module development, Integraltech Flashbus MV PRO and Spectrim
Third project	Improving the autofocus algorithm of the microscope
	Implementing a new system for focusing the microscope within certain time limits. The auto-focus algorithm is based on a patented technique invented by Jan-Mark Geusebroek. My role was to adapt the calculation of the focus-score of a frame to use half a frame (one VSYNC), rather than having to wait two VSYNC and interleaving the waiting for the framegrabber with the waiting for the motor position status.

Technologies	Linux kernel module development, C, the technical details of the framegrabber, the technical details of the Zeis Axiovert 220M, basic biology and microscopy principles, C++, Boost, STL C++
Reference and full description of my work	Lengthy description with a lot of details of my work at Maia Scientific is available on request or ask Peter Van Osta, MD who managed me at Maia Scientific: Peter Van Osta, MD < pvosta@gmail.com > +32497228725 http://www.vanosta.be/cvwww.htm
Worked with	Marc Moeremans, Bart Van Herck

Lannoo – consultant at Cronos	
Period	April 2004 – June 2004
Project	PocketLannoo – Lannoo2004
Tasks	Development of a C# Compact Framework .NET Winforms application on a PocketPC to list books and their descriptions.
Technologies	Visual C#, Compact Framework .NET, Windows CE, Microsoft SQL Server CE, Microsoft SQL Server + replication, Microsoft Sync Framework

Acea – consultant at Cronos	
Period	March 2004 – May 2004
Project	Acea.be - aceaweb
Tasks	Development of a web application
Technologies	PHP, Apache2, Apache2, MySQL, RedHat 9

Godiva – consultant at Cronos	
Period	June 2003 – July 2003
Tasks	Development of a web interface that allows Godiva's franchisees to order their products
Technologies	Visual C#, ASP.NET, ASP.NET Webservice, Windows 2003 Server, SQL Server

11.11.11 – consultant at Cronos

Period	December 2003
Project	Implemented 'vakantieboodschap' feature
OS	Sun Cobalt Linux
Technologies	PHP, Apache, MySQL, Sun Cobalt Linux

Interbrew – consultant at Cronos

Period	September 2003 – October 2003
Project	Development of an inquiry website
Technologies	Visual C#, ASP.Net, ASP.NET Webservices, Windows 2000 Server, Microsoft SQL Server, NHibernate, Spring.NET

KBC Securities – consultant at Cronos

Period	July 2003 – August 2003
Tasks	Development of an intranet application
Technologies	CGI/BIN, Perl, Sun OS, Solaris, XML, CSV files

Boehringer Ingelheim – consultant at Cronos

Period	September 2003 – April 2004
Project	Pocket CRM
Tasks	Development of a C# Compact Framework Winforms application Development of ASP.NET C# webservices
Technologies	Visual C#, Compact Framework .NET, ASP.NET Webservices, XML, SQL Server, Windows 2003 Server, Windows CE, Biztalk

Acea – consultant at Cronos	
Period	January 2004
Project	Acea EzPublish
Tasks	Adjustments to an Open Source web application
Technologies	PHP, Apache2, EzPublish, RedHat 9, MySQL

Glasshouse – employee	
Period	October 2000 – December 2000
Tasks	Development of Perl and C/C++ applications, sockets and TCP/IP programming. Installation, maintenance and security of Debian/Linux servers
Technologies	Perl, Linux, TCP/IP programming, C, C++
References	Leander Berwers

Van Roey Automation – employee	
Period	December 2000 - April 2003
Tasks	Development of an eCommerce website in PHP, a PHP library in order to build aforementioned website, the intranet website of Van Roey and other customer's websites, an online order program, and a CRM/ERP application. MAC OS X support
Technologies	PHP, IM-XML, IntegrateX, VB.Net – C# - ASP.NET, MS Visual C++, Apache, Bind, Postfix, Mac OS X, Windows NT, Linux, ODBC, Sybase, Free TDS, DbTCP, MySql, Pervasive SQL

Deltapro – internship	
Period	Before 2000, one month
Tasks	Development of a Delphi 5.0 and Kylix client/server application that either used a MySQL or a Interbase database.
Technologies	MySQL, Delphi 5.0, Kylix, Delphi 5.0, MySQL, Interbase