

Analytical and solutions-oriented **independent consultant** with experience as software **Developer**, **Technical Lead** and **Development Manager**. I am **PMP** (Project Management Professional) certified.

I am based in Belgium, not far from Brussels. I launched my own company in 2006: TYXIO.

I have 20 years of experience in commercial software development with a **proven ability to lead complex projects from start to finish**. I am prepared to be involved in all facets of software development, quality analysis and customer support. While I made most of my career with large international conglomerates, I enjoy working with small businesses and independent professionals.

Why choose me?

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|--|---|
| <input checked="" type="checkbox"/> Comfortable working with all levels of the organization | <input checked="" type="checkbox"/> Love technology and not afraid to learn new things. |
| <input checked="" type="checkbox"/> Proven ability to work closely with customers; I want to understand their requirements, and deliver accordingly. | <input checked="" type="checkbox"/> Familiar with requirement definitions, analysis and design, and quality processes. |
| <input checked="" type="checkbox"/> Have an office, recent computers and professional MSDN Microsoft licenses. You don't have to provide a seat and pay for equipment. Of course, I have no problem working with your team in your office. | <input checked="" type="checkbox"/> No interest getting it over my head. I'll be honest with you about my capabilities, and whether I believe I'd be a good match for your company's needs. |

I am looking for non-permanent collaboration contracts. Give me a call. I look forward to working with you.

Recent (main) Accomplishments

- From 06/2020 to 03/2021: Developer .NET/C# at IDDI (Ottignies)
- From 11/2015 to 04/2019: Main integrator of Hexagon's I/CAD, a call and data taking system, for the Police Grand Ducale in Luxembourg. In production since 02/2019.
- From 01/2014 to 10/2015:
 - Several projects with Intergraph Belgium and Spain in the area of telephone call distribution (call center) and public safety radio systems (Airbus TETRA). Mainly C++ coding.
 - Developed an application for monitoring professional mobile devices (C# MVVM, Modern UI, Linq).
 - Developed a mobile application consuming the Navigation CoPilot API (C++).
- From 06/2013 to 12/2013: Development for Zetes Belgium of a Windows Phone 8 application targeting professional users. I have migrated legacy C++ code and GDI GUI to C++ 11 and Direct3D.
- From 09/2012 to 04/2013: Development of call control, agent and queue monitoring applications for the Siemens HiPath OpenScape telephone switch. Customer: Intergraph Spain and Junta de Andalucia (Spain).
- From 01/2011 to 08/2012: Director of Development at Intergraph Belgium NV/SA, Division Security, Government & Infrastructure (SG&I).
 - Responsible for the development and delivery of the Belgian SG&I products to the public safety marketplace. I was the manager of a team of 10 developers, Q&A engineer and technical writer.
 - Established processes for proper planning, code source management, defect tracking and quality

controls.

- Acted in a technical lead role and mentored on good practices and principles of professional programming. Made the team responsible for delivering on time high quality software.
- Results:
 - Moved from a 12 months release cycle to a 3 months release cycle.
 - Delivered new strategic products, upgrades and patches on time and with the expected quality.
 - Reduced significantly the backlog of issues; raised customer satisfaction.
- Between 2006 and 2011, I played a key role in the design and development of projects for the public safety market. Some examples:
 - CTI client applications for Avaya, Alcatel and Siemens telephone switches (PBX).
 - Software services for localizing mobile phones (LBS) and identifying telephone callers (AniAli).
 - System for recording telephone and mobile radio calls in a call center environment.
 - Application to guide police units to the location of incidents using Cassidian's TETRA messages (SDS).

Software Programming Expertise

I write software professionally since 1995. My software language expertise is in **C++** and **C#/.NET**. Here is a summary of my programming skills:

- Familiar with object-oriented programming.
- Apply design patterns principles (MVC, MVVM, Observer, Singleton...)
- Large experience in the development of multi-threaded applications.
- Familiar with client-server architectures.
- Experience with Oracle and MS SQL databases.
- Worked with several 3rd party libraries (API) generating solicited and unsolicited messages.
- My preferred development environment is Visual Studio. I have worked with VS since VS 6.0. My current environment is VS 2019. I love to debug using the Visual Studio debugger.
- Version control with Subversion/Git.
- Defect reporting and tracking with Redmine and Jira.
- Code documentation with Doxygen.

C++ specifics:

I write C++ professionally since 1995. I have written large applications (>20K code lines), client and server modules. Here is a summary of my C++ specific skills:

- C++ 11 (lambdas, smart pointers, concurrency), C++/CX (WinRT)
- Boost libraries (Graph, Interprocess, Filesystem, posix_time, Config, Chrono...)
- STL collections and algorithms
- Generic programming
- Multi-platform experience (Win32, Linux RH, Solaris, IBM AIX)
- COM programming (client side)
- GUI with MFC and wxWidgets
- Logging with MS Enterprise Library Logging and Log4cxx.
- Code profiling and run-time debugging with IBM Rational Purify.
- Parallel programming with Intel TBB (personal interest).

C# and .NET specifics:

I write C# professionally since the framework .NET 2.0 was released (2005). Here is a summary of my C# specific skills:

- Developed code for .NET 2.0 to 4.7
- Comfortable with mixed-platform projects (native C++, C++/CLI, C#).
- Skilled at C# generic programming.
- Familiar with Linq (Objects, SQL) and Entity Framework (but not much professional opportunities to use EF).
- Familiar with memory management techniques and the .NET garbage collector.
- GUI with Windows Forms and WPF.
- Logging with Log4net, NLog.
- I have a Plurasight account. I follow .NET courses frequently to learn new techniques and refresh my skills

(e.g. linq, parallel and asynchronous programming).

Besides the technical aspects of programming, I attach great importance to the quality of the code. Writing maintainable and robust software is important for me even for small projects. I am skilled with creating well-documented and readable software libraries in a manner convenient to and understandable by the users.

More important is my understanding of the software development cycle. I attach a great importance to the Initiate and Design phases and to Quality Validation. I pay always attention to deliver a fully tested product to the customer.

Application refactoring and debugging

I enjoy code refactoring and debugging. Both require strong analytical skills and perseverance. If you have legacy programs that you need to fix or upgrade, you can contact me.

Career Snapshot

10/2006: Launched **TYXIO**, my software development consultancy company. As a freelance consultant, I have developed or participated to the following projects:

2015 to 04/2019: Projects with **Intergraph Belgium** and the **Police Grand Ducale** in Luxembourg

2014: Projects with **Zetes Belgium, Intergraph Belgium, Intergraph Spain.**

06/2013 to 12/2013: Development of a Windows Phone 8 application. Technology: C++, C++/CX, Direct3D. Customer: **Zetes Belgium**. The product is delivered.

09/2012 to 04/2013: Development of call control, agent and queue monitoring applications for the Siemens HiPath OpenScape telephone switch. Technology: C++, COM, various Boost libraries. Customer: **Intergraph Spain** and **Junta de Andalusia** (Spain). The product is delivered.

01/2011 to 08/2012: Director of Development at **Intergraph Belgium**, Division Security, Government & Infrastructure (SG&I). During that period I was the manager of a team of 10 developers, Q&A engineer and technical writers. See the section "Recent Accomplishments" above for details about this position. In parallel to this management position, I have continued to develop applications:

- In partnership with **SMALS**: a C# application to send emergency medical data to a remote database using the Belgian e-Health web service.
- In partnership with **the Ministry of Health**: a C# application to send dispatching messages to medical and fire brigades and to receive status messages to help dispatcher take decisions.

08/2010 to 01/2011: **Intergraph Belgium** in partnership with **Belgacom** asked me to be the technical lead for the development of software services for localizing mobile phones (LBS) and identifying telephone callers (AniAli) in 112 call-centers. Several C# and C++ modules were developed to connect to the Belgian telephone providers and to present the data to the call-takers. The team included 3 developers, a quality engineer and a technical writer. The product was delivered on schedule and is now used daily overall Belgium.

08/2009 to 06/2010: **Intergraph Belgium** in partnership with **Belgacom, EADS** and **Verint** asked me to be the technical lead for the development of a telephone and mobile radio recording application. Several C# modules were developed to tag recordings at run-time with data obtained from a telephone PBX and from a TETRA radio controller. The team included 2 developers, a quality engineer and a technical writer. The application is now deployed in the Belgian 112 call-taking centers.

03-06/2009: Development of a telephone client application for **Intergraph Spain & Portugal**. The application is used daily in call-centers in Barcelona and Lisbon.

During the period 04/2008 to 02/2009, I have developed several C# and C++ applications for **Intergraph Belgium**. Examples: an application to send SDS messages to mobile radios, a C++ CLI module to connect C# applications to Intergraph C++ products.

06/2007 to 03/2008: **Intergraph Belgium** in partnership with **Belgacom** asked me to refactor a Microsoft TAPI telephony application to support the Avaya TSAPI technology. This project involved reverse engineering of an existing TAPI client/server application, design & implementation of a C++ DLL interfacing the Avaya TSAPI SDK, and of a COM C++ DLL. Metrics: 9 months from investigation to QA, 16,000 lines of code, 4,000 lines of Doxygen documentation. The product was accepted and was deployed during the year 2008 in the 10 call-taking centers of the Belgian Federal Police.

02-05/2007: I have upgraded **Intergraph's** TETRA radio application used in the Belgian emergency dispatching centers (100/101 call-taking centers). The project consisted in modifying an existing C++/MFC application to support recent versions of the EADS TETRA Connectivity Server. The delivery was accepted without correction.

12/2006: I have developed for a local medical association an Outlook plugin (C#) to send SMS and to connect to Sugar CRM.

1997-2006: **Hewlett-Packard** and **Agilent Technologies** (spun off HP in 1999): Expert Software Developer in the Test & Measurement Division. I was a key contributor to various modules of EEsof's Advanced Design System (GUI and back-end applications). I was the developer lead for the 'Physical Connectivity Engine' built with the generic C++ Boost library.

1995-1996: **European Organization for Nuclear Research (CERN, Geneva)**: CAD support engineer for electromagnetic simulation programs (e.g. HP HFSS).

1993-1994: **ULB and SABCA (Brussels)**: Software developer in the HERMES program (European space shuttle).

1987-1993: **ULB and Deutsches Elektronen-Synchrotron (DESY, Hamburg)**: Main developer of a VME-based modular data acquisition system. Many lines of MC68020 assembly code...

Education and Certifications

2019:

- Microsoft Certified: Azure Fundamentals
- The Linux Foundation - Blockchain for Business - An Introduction to Hyperledger Technologies
- The Linux Foundation - Blockchain: Understanding Its Uses and Implications

2013: PMP Certification (Project Manager Professional) delivered by the PMI (pmi.org).

1993: PhD in Sciences, High Energy Physics (University of Brussels ULB, highest distinction)

1987: Diploma degree in Civil Engineering, section Physics (University of Brussels ULB, highest distinction)

Miscellaneous

- French is my native language; I am fluent in English (many years with US companies); I have a passive knowledge of Dutch.