

# Working profile (English version) - Peter Seiderer

(English version - last updated January 2020)

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<b>Name:</b>	Peter Seiderer
<b>Born:</b>	1969
<b>Education:</b>	Diplom-Informatiker Univ.
<b>Foreign Languages:</b>	English
<b>Hardware:</b>	PC (x86, x86_64), Siemens-RM, Sun Sparc, TI DM6467 (ARM), Freescale/NXP i.MX 6 (ARM)
<b>Operating Systems:</b>	Linux, Siemens-Reliant UNIX, Sun Solaris, MS-DOS, Windows
<b>Programming Languages:</b>	C, C++, Java, Perl, Python, Shell
<b>Databases:</b>	Oracle, Postgres, mSQL, Access
<b>Products/Standards/Interfaces:</b>	ClearCase, CVS, Subversion, Git, GNU Compiler Toolchain, CDS++, Sun WorkshopPro, Message Passing Interface (MPI), ASN.1, Corba, Java Card 2.2 Platform Specification, Java Card Kit 2.1.2
<b>Network:</b>	TCP/IP (IPv4, IPv6, ICMP), ISDN, SS7, ISUP, INAP, MAP, OpenSSL (SSL, TLS, DTLS)
<b>Experience:</b>	system development, application development, software design, administration
<b>Trade/Industry:</b>	Telecommunication, Financial Services, Internet Service Provider, Consumer Imaging, Medical
<b>Open Source contributions:</b>	ImageMagick, Valgrind, Linux-Kernel, Qt, Shotwell, SQLbrowser, GStreamer, Buildroot, vpopmail, v4l-utils

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## Projects

- September 2017 - December 2019  
Embedded video solution for HNO/Neurosurgery Surgical Microscope on a NXP i.MX6 based Linux system. Linux CAN-Socket connection. Development of a Buildroot based Linux system including an update mechanism.  
(C++, Qt, Linux-ARM, GStreamer, Buildroot, Barebox, Git, Bitbucket, CMake, Conan)
- Februar 2014 - August 2016  
Embedded software für high-end Neurosurgery Surgical Microscope including an integrated video solution. Development of an UDP/DTLSv2 based encrypted networking protocol controlling/driving the microscope over an external Navigation Interface.  
(C++, Qt, Windows, GStreamer, OpenSSL)
- December 2011 - Januar 2014  
Embedded video solution for Neurosurgery/Dentistry Surgical Microscopes using V4l2/GStreamer on TI DM6467/Linux based board. Development of an DualBoot based Update-Mechanism embedded Linux system.  
Qt Display-Driver for a custom TI DM6467 based video GUI-Overlay solution.  
Qt Display-Driver/Linux-Kernel-Driver for a video GUI-Overlay using a FPGA component.  
Prototype for a Java-/Linux-CAN-Socket driver (JNI).  
(C++, V4l2, Linux-ARM, GStreamer, Qt, DBus, U-Boot, Java-JNI)
- March 2010 - November 2011  
Embedded Software for mid-range Surgical Microscopes used for Ophthalmology/Neurosurgery (Java, WindowsCE).  
Tracer/Decoder for a custom CAN-Protokoll (Java, x86).  
(C++, Java, Realtime-Java/JamaicaVM, Subversion)
- September 2008 - August 2009  
Enhancement of a SmartCard/PKI middleware.  
(PKCS11, ISO/IEC 24727-3, ISO/IEC 7816, Microsoft CryptoAPI/CSP)  
(VisualStudio, Perforce, GNU Compiler/Automake/Autoconf, Subversion, CppUnit, OSS Nokalva ASN.1)  
Design and implementation of a eCard-WebService (eCard-API-Framework/BSI TR-03112).  
Enhancement of the gSOAP framework with a PAOS implementation.  
(C++/gSOAP, Java/Jax-WS)} Design and implementation of a prototype

web application for the eCard-API-Framework.  
(Tomcat, JSP, Servlet, Java/Jax-WS)

- November 2007 - April 2008

eCard-WebService prototyp implementation (eCard-API-Framework/BSI TR-03112).

(C++/gSOAP, Java/Jax-WS)

Design and implementation of a SmartCard/PKI middleware, modultests and refactoring.

(PKCS11, ISO/IEC 24727-3, PKCS15, ISO/IEC 7816, Microsoft CryptoAPI/CSP)

(VisualStudio, Perforce, GNU Compiler/Automake/Autoconf, Subversion, CppUnit, Doxygen,

OSS Nokalva ASN.1, Purify, Valgrind)

- October 2006 - September 2007

Technical and functional enhancement of a high-availability and high performance

business server (64 bit, multithreaded) for a order management system using a

XML based protocol. Performance tuning and refactoring of various components.

(Solaris, C++, Oracle, Rational Rose, CVS)

- January - April 2006

Design, implementation and test of a Voice over IP emergency call telephone system.

(H.323, SIP, Swyx-PBX)

Design and implementation of a monitor server for emergency call telephone devices.

(C#, .NET, UML)

Design and implementation of a serverer tranposing a proprietary emergency call telephone device protocol from S0-Bus (ISDN) to IP (UDP).

(mISDN, Linux, C, C++)

- September 2002 - November 2005

Design and implementation of a multithreaded workload scheduling framework for the digital image processing of a minilab (using various OO technologies).

Design and realization of a remote boot/install Linux PC (including a bootp/dhcp and tftp server for Windows 2000).

Code review and redesign of various software modules.

(C++, UML, Linux, Windows, PVCS, Subversion, GCC/G++, Intel Compiler, Visual Studio)

- July 2001 - July 2002

Design and implementation of a e-Learning Solution (Server, Client)  
in Java using the XML-Publishing framework Cocoon.  
(Java, Apache, Tomcat, Cocoon, Postgres, Linux)

- October 2000 - June 2001

Design and implementation of a high-availability and high performance  
business server  
(64 bit, multithreaded) for a order management system using a  
XML based protocol.  
(Solaris, Sun Workshop 6.0, C++, RogueWave, SOAP, Expat, Xerces,  
Oracle, Rational Rose, CVS)

- January - August 2000

Internet applications for a local Internet Service Provider:

- e-commerce shop (Perl, Postgres, credit card accounting (WireCard))
- Voting via Internet (Perl)
- NetCommunity
- WAP application (Perl, Postgres, SecureSocketLayer (OpenSSL))
- Crypto-Keyserver (C, OpenSSL)
- Performance critical CGI programming (FastCGI)
- e-commerce shop (Cocoon, XML, XSLT, Java, Oracle)
- e-cards via e-mail (Perl, Sendmail)
- newspaper advertisements with several search functions (php, MySql)

- July 2000

Design and implementation of a web based polling system  
(multilingual, multidomains) distributed on different servers  
for a e-mail provider.  
(C, Oracle, Linux)

- November - December 1999

Documentation of a C library for Internet applications.  
(c2man)

- September - October 1999

Adding the MAP (GSM) protocol to the load and protocol tester.  
Introducing members of the team into functionality  
and programming of the load and protocol tester.  
(C, C++, Unix)

- May - August 1999

Adding the ITU-ISUP and ANSI-ISUP protocol to the load and protocol  
tester.  
(C, C++, Unix)

- March - April 1999  
Porting of the load and protocol testers from Reliant-Unix to Intel- and Sparc-Solaris.  
(C, C++, Unix)
- October 1998 - February 1999  
Design and implementation of a load and protocol tester for telecommunication protocols (ITU-INAP).  
(C, C++, Unix)
- April - September 1998:  
Implementation of a data inserting tool for a proprietary database used in the telecommunication environment (Intelligent Networks, IN).  
(C, C++, Unix)
- June - August 1998:  
Installation of a Internet server and net clients for the computer science room of Hauptschule Giesing.  
(Linux and NT)
- September 1997 - February 1998  
Implementation of different parallel algorithm for a transputer with MPI (Message Passing Interface) in a UNIX environment (Diplomarbeit).  
(C, C++, Unix, MPI)
- February - August 1997:  
Java GUI for database access over Internet to Oracle and Access.  
(Java, Oracle, Unix)