

William David Herndon

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Born: 22-Oct-1961, Detroit, Michigan, USA

Professional Accomplishments

Recent projects

- A launcher (home screen) for Android, in Beta: play.google.com/apps/testing/de.williamherndon.lawnchair
- An Android app to display weather data. Still in process: github.com/wdherndon/WeatherApp
- Websites: softwareschmiede-herndon.de, johannestremel.de, silverborras.eu, virtualwritinggroup.org, blog.softwareschmiede-herndon.de, dojo-wehrda.de, multiple-sclerosis-blog.org

Reverse/Forensic Engineering (for IP-lawsuit CCP Systems vs. Samsung)

- Wrote extensive Python scripts for IDA disassembler of ARM and MIPS code to automate segregation of code and data, fix function boundaries, determine data types, find tables, and other repetitive tasks.
- Reverse engineered decryption and decompression algorithms and wrote C/C++ code to convert firmware update-files into their component binary segments.
- Wrote C, then later Python code to sort and compare functions to find identical and nearly identical functions.

JScript and related projects

- Wrote and maintained major portions of JScript (JavaScript with extensions for printers and MFDs, effectively making it an OS-like platform), among other things: multi-threading, sockets, LPD, encryption.
- Ported JScript from Windows to pSOS, VxWorks, Linux and Windows Embedded platforms, with Intel, ARM and MIPS processors.
- Did projects in JScript: graphics library, architect for and wrote major portions of JScript Mobile & Secure Printing (JMPS), wrote smart card reader interface (serial communication, PKI certificates, X.509 parser), magnetic strip card reader, Email program, and RSS reader.
- Wrote a CIFS library (also known as SMB).

Graphics and miscellany with Microsoft Windows

- Primary author of JETScript, print server (LPD, Raw, Hot folder) with integrated Prescribe to PCL converter.
- Wrote and maintained large parts of “Ambiente house planner”: wall objects, measurement objects, 3D viewer, video generation, 3D filter (DXF format, VRML format).
- Was responsible for large parts of “Studio” and “Symbol Manager”: bitmap dithering, standard objects, filters (12 different vector and bitmap filters), “thunking” between 16-bit and 32-bit.
- Wrote and maintained major parts of “Desktop” program: compression, reliability/error recovery, diskette formatting.

Graphics with Digital Research’s GEM

- Wrote major parts of Artline 1 & 2: autotracing, bitmaps, clipping, color separation, blends.
- Extended GEM to use Bezier curves (extensive work with DR’s development team).
- Wrote various printer and screen drivers in assembly language.

Pre-GEM Work at CCP Software GmbH / CCP Development GmbH

- Created Microsoft Word printer descriptions (PRD files).
- Fixed problems in system libraries of Zortech C Compiler.
- Provided support for T&T Verlag (publisher of “GEM User Magazine”).

Programmer and Technician at Ahlbrandt Computer

- Solved technical problems for IBM PCs and multiple printer types, with customer contact.
- Wrote a set of TSR programs in x86 Assembly, other programs in Pascal and BASIC.
- Wrote programs in dBase and FoxBase for customers.

Employment History

2015-present	Self Employed	Softwareschmiede Herndon UG, Marburg
2000-2015	Senior Programmer	CCP Systems AG, Stuttgart
1988-2000	Senior Programmer	CCP Development GmbH, Marburg
1987-1988	Programmer	CCP Software GmbH, Marburg
1985-1987	Programmer/Technician	Ahlbrandt Computer, Marburg

Education

1984	B.Sc. Applied Mathematics (Computer Science)	Carnegie-Mellon University, Pittsburgh, Pennsylvania, USA
1984	B.Sc. Electrical Engineering and Biomedical Engineering	Carnegie-Mellon University, Pittsburgh, Pennsylvania, USA