

Luca Gallina

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Profile

Freelance programmer/analyst with extensive experience on Siemens Step5 / Step7 PLCs and with automated systems integration from the conceptual design stage to commissioning.

Specialised in developing standard functions, software drivers and pre-commissioning simulations on S7 PLCs.

Have worked for different software houses, including a Siemens Industrial Service company, and therefore in touch with various automation fields.

Good problems solving and analytical skills.

Ability to work independently or within a team environment.

Developer of software tools, utilities and serial protocol drivers for Siemens Step7 systems.

Professional experience

- Full-time automation programmer since 1988, planning, developing, commissioning and documenting software for automated machines and plants.
- Most experience concerns Siemens S5 and S7 PLCs in various industrial fields such as automated warehouses, steel and woodworking machinery, steel mills and foundry plants, packaging machinery, food and beverage industry, glass industry, scientific and research applications.
- Experience as software specialist and consultant for Italian Siemens Service.
- Experience in open and closed loop positioning modules, multi-axis machinery applications.
- Developed S5/S7 blocks libraries for third parties.
- Developed specialised software with Borland Delphi and MS Visual Basic.
- Developed PC-based CASE utilities, simulation applications and other PLC programming aids.
- Knowledge of PLC communication processors (Serial, Profibus, Industrial Ethernet).
- Experience in communications, including protocols reverse-engineering.
- Developed HMI applications, using Siemens Protocol / WinCC Flexible or PC programming languages.
- Experience in small and large projects, in team projects as well.
- International work experience.

Software tool for Simatic systems

I developed several software tools for Simatic programmers, all available at my web site www.runmode.com .
Tools include

- Programming and commissioning aids
- software Modbus drivers suitable for any CP
- software NMEA0183 driver suitable for any CP
- datablocks data manipulation.

PLC Controllers and languages

SIEMENS

- Specialised in Siemens STL /AWL (assembler-like) and SCL (Pascal-like) languages
- Siemens S7 300/400 series PLCs
- Siemens SIMOTION D motion control system
- Sinamics S120 drives, Sinamics G120 drives, Simodrive 611 drives (analog and Profibus controlled)
- communication processors CP343/443, CP341/441
- high speed counters, open-loop positioning modules FM350/351
- closed-loop positioning modules FM354, NC modules FM357
- Moby RFID systems
- Siemens S5 100/115/135/155 series, communication processors CP 521/523/524/525, HMI processors CP 526/527/528, high speed counters, open-loop positioning modules IP 385, IP240, IP241, WF 706, closed loop positioning modules IP 266, IP246, WF 721/723, WF726.

CODESYS

- CODESYS v.3 for Schneider SoMachine

OTHERS

- Past experience in programming other PLCs brands: Allen-Bradley, Omron, GE, Schneider (Telemecanique), Hitachi, Mitsubishi, April, Klockner-Moeller, Texas Instruments, Honeywell System 9000.

Microcontrollers

- Microchip PIC microcontrollers (programmed in C)

Computer science

- Programming languages: Pascal (Delphi, Lazarus), C (for microcontrollers), MS Visual Basic,
- Operating systems: DOS, MS Windows from 3.x up to Win7, Linux.
- Specific programs: AutoCAD, Visio, HTML editors, MS Office suite, DTP programs.

Teaching skills

- Experience as PLC programming instructor at professional schools and industrial companies.

Languages

- Italian
- Good English
- Some French

Education

- 1992 - present:
 - various seminars and workshops.
 - various programming courses at Siemens for specific functional units.
- 1991: System 9000 programming course at Honeywell, Milan.
- 1988: Basic and advanced PLC programming courses at Siemens, Milan.
- 1988: Basic NC programming course at Siemens, Milan.
- 1982: Diploma in Electric Engineering at "Enrico Fermi" State Industrial Technical Institute in Bassano del Grappa (Vicenza, Italy).

Professional status

- September 1994 – present
Freelance automation programmer and consultant for several Italian industrial companies and software houses.
- November 1988 – August 1994
PLC/HMI programmer/analyst at different Industrial Automation software houses.
- June 1985 – October 1988
plants erection and machinery commissioning engineer.

References

- Available upon request.

ADDITIONAL INFORMATION

Logistics and Airport relevant information

My skills and experience in developing automated storage systems (belt and tray conveyors, barcode readers and printers, RFID devices, items tracking, communication with higher-level computer systems) can be applied to Baggage and Freight Handling Systems.

As aviation fan, I am aware of avionics instrumentation and ground systems concepts (e.g. Airport Light Processor, Runway Safety System). I am familiar with aviation jargon and ATC communications.

Stage automation relevant information

I developed stage automation projects based on custom-made cards for stepper motors control (laser mirrors and gratings positioning) and touch screen interface. Microcontrollers programmed in C, user interface programmed in Delphi. Communication via DMX protocol.