

STEP 7

STEP 7 , or **S7** , is a programming *software* for the [PLC](#) (programmable logic controllers) [SIMATIC-S7](#) , from [Siemens](#) .

The S7 is the successor of S5 (for the SIMATIC-S5 PLC), which is widespread throughout [Germany](#) . SIMATIC PLCs are a standard in the area, competing in the front line with other programming systems and logic control of PLCs, according to [IEC 61131-3](#) . ^[*appointment required*]



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Description [[edit](#)]

STEP 7 dominates the programming language market according to DIN EN 61131-3 with three programming languages: ^[*citation needed*]

- **FBS** - *Funktionsbausteinsprache FUP Funktionsplan* , function diagram
- **KOP** - *Kontaktplan englisch LD* or LAD, contact diagram
- **AWL** - *Anweisungsliste englisch STL* , instruction list ¹

According to EN 61131-3 (Engineering Tools):

- S7 SCL (*Structured Control Language*) *Structured Text Language*
- S7-Graph (*grafisch programmierbare*) Programmable Graphics

Further:

- S7 HiGraph
- S7 CFC (Continuous Function Chart)

AWL or instruction list is similar to assembly language. Like SCL it is based on text programming. All programming tools are graphical programming interfaces.

All operations are centralized and allow operation with any type of data.

Through Structured Programming it is possible to reuse modules simplifying extensions or modifications of subsequent projects.

It uses engineering tools for the diagnosis, simulation and simple or complex control of the programmed loops.

With STEP 7 you have access to the SIMATIC controllers. From this the Siemens Automation Totally Integrated is achieved, with advantages for the users of SIMATIC devices in the different tasks.

On the other hand, there are many vendors who develop tools or function modules, where the programmer eliminates time-consuming tasks and improves error diagnosis.

Origin of the term [[edit](#)]

"STEP" STeuerungen Einfach Programmieren, simple programming controller.

Versions [[edit](#)]

Version	Release date	Date	OS
1.0	nineteen ninety five	1. February 1997	Version 1.0 of STEP 7. With authorization disk on Windows 3.11.
2.0		1. February 1998	Simatic S7-400 Version 2.0 over Windows 95.
2.1	27. August 1996	January 13, 1998	Current S7-300 CPU. ²
3.0			Version of SIMATIC S7, Soft-SPS - Software-SPS, WinAC.
3.1	5. June 1997	1. October 1997	Version 3.1 for Windows 95 with floppy disks and CD.
3.2	1. October 1997	1. May 1999	Version 3.2, with floppy disks and CD, on Windows NT.
4.0	2. November 1998	1. September 2000	Version 4.0, for Windows 95 and NT with CD. With SP3 for Windows NT correcting Software errors and new Version 4.01.
5.0	7. June 1999	1. January 2003	Version 5.0 for Windows 95 and NT up to Windows 98.

5.1	14. August 2000	1. June 2004	Version 5.1 running on Windows ME and Windows 2000 also works on Windows 95/98 / NT.
5.2	16. January 2003	1. October 2006	Version 5.2 on Windows XP.
5.3	30. January 2004	30. August 2010	Version 5.3 for Windows 2000 and Windows XP.
5.4	6. April 2006		V5.4, 4. October 2006 SP1 appears On 15. June 2007 Service Pack 2 On 12. October 2007 Service Pack 3 for Microsoft Windows Vista. Troubleshooting Microsoft Windows XP. On September 10, 2008 Siemens releases Service Pack 4 for Version 5.4 ³⁴ On May 25 , 2009 published the Service Pack 5. ⁵
5.5	30. August 2010		Version for Windows XP (SP2 and SP3) and for Windows 7 (32Bit), not for Windows Vista, Compatibility List. ⁶⁷ The STEP 7 V5.5 SP1 on Windows 7 64-Bit (Professional, Ultimate and Enterprise) ⁸
10.0			<i>Beta version STEP 7.</i>
10.5	10. June 2009		For the new generation of SIMATIC S7 from S7-200 to S7-1200. Also S7-300 and S7-400 until S7-1500 and new innovations. ⁹ New WinCC flexible, Updated Version 1.3.3.0 (2008 SP3 moving from V5 to V10 STEP 7 ¹⁰ Service Pack 1 Software in Spanish, Italian and French. ¹¹
11.0	30. March 2011 ¹²		Current V11 version of STEP 7 in the new TIA Portal Frameworks for Programmable Controllers, supporting S7-300 and S7-400. ^{13 14}