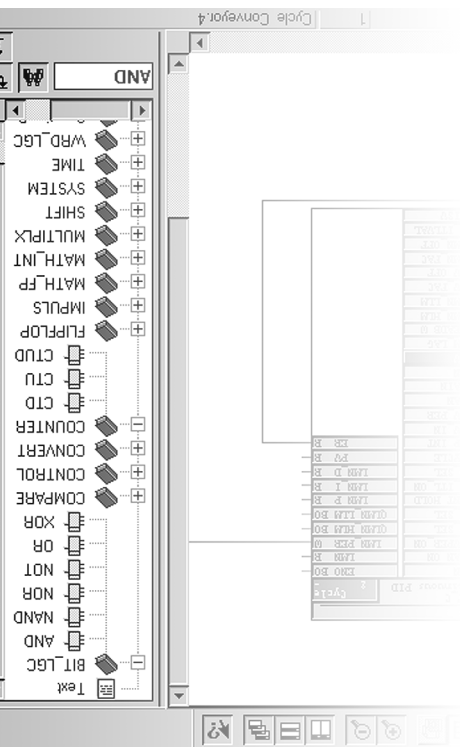


	S7-SCL	S7-GRAPH	S7-HiGraph	CFC
<b>Application areas</b>				
Can be used for	Text-based high-level language programming of simple and complex calculations, CASE, loop, jump and comparison functions	Graphical programming of sequential controls and sequencers	Graphical and flexible status description of function units and coordination functions	Graphical interconnection and parameterization of (off-the-shelf) blocks and functions
Advantages	Programming of algorithms and calculations made easy! <ul style="list-style-type: none"> <li>• Clear and easy-to-read programs</li> <li>• CASE statement replaces a host of jump and comparison functions</li> <li>• Easy changeover for PLC programmers since the programming philosophy of LAD/FBD/STL is retained</li> <li>• Easy changeover for PC programmers to PLC programming</li> <li>• Portability of program sections in accordance with IEC 61131-3</li> <li>• Single-step processing for easier fault search when testing</li> <li>• Time savings in engineering overhead compared to LAD/FBD/STL: up to 20% for simple programs; at least 50% for demanding program structures</li> </ul>	The fast and elegant way to program sequential processes easily and clearly! <ul style="list-style-type: none"> <li>• Can already be used optimally in the design phase</li> <li>• Reduced configuring overhead thanks to graphical structuring and programming</li> <li>• Can be learned quickly and easily</li> <li>• Accurate fault location using integrated diagnostics in combination with ProAgent for Pro Tool Pro and WinCC</li> <li>• Single-step processing for easier fault search when testing</li> <li>• Time savings in the engineering overhead compared to LAD/FBD/STL: approx. 40 to 70%</li> </ul>	One common language for the engineer, programmer, startup engineer, operator and maintenance engineer! <ul style="list-style-type: none"> <li>• Can already be used optimally in the design phase</li> <li>• Easy to get an overview of the mechanical functions</li> <li>• Reduced configuring overhead thanks to graphical programming</li> <li>• High level of reusability of already described functions such as the behavior of valves, motors, clamping equipment, ...</li> <li>• Can be learned quickly and easily</li> <li>• Short program execution times</li> <li>• Accurate fault location thanks to integrated diagnostics in combination with ProAgent for Pro Tool Pro</li> <li>• Time savings in the engineering overhead compared to LAD/FBD/STL: up to 50%</li> </ul>	Interconnection and parameterization instead of programming! <ul style="list-style-type: none"> <li>• Can already be used optimally in the design phase</li> <li>• Reduced configuring overhead thanks to graphical interconnection</li> <li>• High level of reusability of already created diagrams</li> <li>• Can be learned quickly and easily</li> <li>• Fast and clear interconnection of off-the-shelf functions</li> <li>• Technological creation of the overall program</li> <li>• Clear representation of closed-loop control structures</li> <li>• Short startup time</li> <li>• High plant availability</li> <li>• User-friendly generation of your own blocks with S7-SCL</li> <li>• Time savings in the engineering overhead compared to LAD/FBD/STL: up to 50%</li> </ul>
Sectors	<ul style="list-style-type: none"> <li>• Labelling machines</li> <li>• Rubber and plastics machinery</li> <li>• Woodworking machines</li> <li>• Warehousing and logistics</li> <li>• Paper and printing machinery</li> <li>• Stamping and cutting machinery</li> <li>• Winding machines</li> </ul>	<ul style="list-style-type: none"> <li>• Automotive engineering</li> <li>• Rubber and plastics machinery</li> <li>• Handling machines</li> <li>• Woodworking machines</li> <li>• Metalworking machines</li> <li>• Paper and printing machinery</li> <li>• Test machines</li> <li>• Rolling mills</li> <li>• Winding machines</li> <li>• Leisure and entertainment equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Automotive engineering</li> <li>• Rubber and plastics machinery</li> <li>• Machinery for the food and beverage industry</li> <li>• Machine tools</li> <li>• Winding machines</li> <li>• Special machinery</li> </ul>	<ul style="list-style-type: none"> <li>• Automotive engineering</li> <li>• Chemicals industry</li> <li>• Power engineering and distribution</li> <li>• Rubber and plastics machinery</li> <li>• Metalworking machinery</li> <li>• Machinery for the food and beverage industry</li> <li>• Petrochemicals</li> <li>• Rolling mills</li> <li>• Water</li> <li>• Winding machines</li> </ul>
<b>Program execution times</b>				
on S7-300 (typical)	Similar to LAD/FBD/STL	3 ms per block + 1 ms per active step	0.1 ms per diagram group + 0.1 ms per state transition diagram	Dependent on the interconnected blocks
on S7-400 (typical)	Similar to LAD/FBD/STL	0.4 ms per block + 0.06 ms per active step	0.1 ms per diagram group + 0.01 ms per state transition diagram	Dependent on the interconnected blocks
<b>Diagnostics</b>				
System diagnostics	Uses the diagnostics possibilities in STEP 7 (e.g. diagnostics buffers) with all relevant messages	Uses the diagnostics possibilities in STEP 7 (e.g. diagnostics buffers) with all relevant messages	Uses the diagnostics possibilities in STEP 7 (e.g. diagnostics buffers) with all relevant messages	Uses the diagnostics possibilities in STEP 7 (e.g. diagnostics buffers) with all relevant messages
Process diagnostics				
Integration of diagnostics information into ProAgent	-	yes	yes	-
Integration of diagnostics information into Pro Tool Pro	-	using ProAgent	using ProAgent	-
Integration of diagnostics data into WinCC	-	using ProAgent	using ProAgent (available soon)	-



**SIEMENS**

**Engineering Tools**

**SIMATIC S7**

**Selection criteria**

**SIEMENS**

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	S7-SCL	S7-GRAPH	S7-HiGraph	CFC
<b>Supported standards</b>				
IEC 61131-3	PLCopen certification <ul style="list-style-type: none"> <li>• Base Level available</li> <li>• Reusability Level (available soon)</li> </ul>	PLCopen certification <ul style="list-style-type: none"> <li>• Base Level (available soon)</li> </ul>	-	Based on IEC standard
Status of PLCopen activities	Test profile for Reusability Level (available soon)	Test profile for Base Level available	-	-
<b>System environment</b>				
Can be used in	S7-300 (recommended from CPU 313) S7-400 C7 (recommended from C7-626) WinAC	S7-300 (recommended from CPU 314) S7-400 C7 (recommended from C7-626) WinAC	S7-300 (recommended from CPU 315) S7-400 C7 (recommended from C7-626) WinAC	S7-300 (recommended from CPU 316) S7-400 F/H systems WinAC
<b>System requirements</b>				
Operating system	Windows 95/98, NT, 2000 or Me	Windows 95/98, NT, 2000 or Me	Windows 95/98, NT, 2000 or Me	Windows 95/98, NT, 2000 or Me
PG/PC hardware	Pentium	Pentium	Pentium	Pentium
Recommended main memory configuration in the PG/PC	64 MB	64 MB	64 MB	128 MB
Hard disk requirement in the PG/PC approx.	8 MB	15 MB	10 MB	51 MB
Required software	STEP 7 V5.0 or V5.1	STEP 7 V5.0 or V5.1	STEP 7 V4.0, V5.0 or V5.1	STEP 7 V5.0 or V5.1 S7-SCL V5.0 or V5.1
<b>Ordering versions/Licences</b>				
Current delivery version	V5.1 + SP2	V5.1	V5.0 + SP1	V5.2 + SP1
One off licence	CD-ROM with <ul style="list-style-type: none"> <li>• Tool</li> <li>• Electronic manual</li> <li>• Getting Started and</li> <li>• Examples</li> </ul> Authorization diskette Software product certificate	CD-ROM with <ul style="list-style-type: none"> <li>• Tool</li> <li>• Electronic manual</li> <li>• Getting Started and</li> <li>• Examples</li> </ul> Authorization diskette Software product certificate	CD-ROM with <ul style="list-style-type: none"> <li>• Tool</li> <li>• Electronic manual</li> <li>• Getting Started and</li> <li>• Examples</li> </ul> Authorization diskette Software product certificate	CD-ROM with <ul style="list-style-type: none"> <li>• Tool</li> <li>• Electronic manual</li> <li>• Getting Started and</li> <li>• Examples</li> </ul> Authorization diskette Software product certificate
• Order No.	6ES7 811-1CC04-0YX0	6ES7 811-0CC04-0YX0	6ES7 811-3CC03-0YE0	6ES7 813-0CC05-0YX0
Upgrade license (UG)	CD-ROM with <ul style="list-style-type: none"> <li>• Tool</li> <li>• Electronic manual</li> <li>• Getting Started and</li> <li>• Examples</li> </ul> Authorization diskette Software product certificate Product information	CD-ROM with <ul style="list-style-type: none"> <li>• Tool</li> <li>• Electronic manual</li> <li>• Getting Started and</li> <li>• Examples</li> </ul> Authorization diskette Software product certificate Product information	CD-ROM with <ul style="list-style-type: none"> <li>• Tool</li> <li>• Electronic manual</li> <li>• Getting Started and</li> <li>• Examples</li> </ul> Authorization diskette Software product certificate Product information	CD-ROM with <ul style="list-style-type: none"> <li>• Tool</li> <li>• Electronic manual</li> <li>• Getting Started and</li> <li>• Examples</li> </ul> Authorization diskette Software product certificate Product information
• Order No.	6ES7 811-1CC04-0YX4	6ES7 811-0CC04-0YX4	6ES7 811-3CC03-0YE4	6ES7 813-0CC05-0YX4
Software Update Service (the respective current version is prerequisite when ordering)				
• Order No.	6ES7 811-1CA01-0YX2	6ES7 811-0CA01-0YX2	6ES7 811-3BA01-0YX2	6ES7 813-0CA01-0YX2
<b>Is also a component part of the following products</b>				
STEP 7 Professional	yes	yes	-	-
S7 Trainer Package	yes	yes	yes	-
PCS 7	yes	-	-	yes