

# SETTING YOU UP FOR SUCCESS

## *Siemens PLCs Learning Guide*

### **1 Consult with ACD Engineering for pre-sale support: Determine the correct equipment required**

Utilize ACD Engineering Support

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Use the TIA Selection Tool

[Click Here](#)

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Use the Siemens Mall (online catalog), Automation Chapter

[Click Here](#)

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### **2 Learn the basics of the software:**

Watch the Siemens Tutorial Center videos

[Click Here](#)

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Attend an ACD Fundamentals Class

[Click Here](#)

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Attend Siemens classes, virtual, in person, self-paced

[Click Here](#)

- “Learning Services” – “Scheduled Learning” for in person
  - “Learning Services” – “Digital Learning” for virtual and self-paced
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If needed, note the specific class: AB to S7 with TIA Portal - Virtual

[Click Here](#)

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### **3 When learning the software, make sure to understand the following topics:**

The PLC memory concept. Bits are part of bytes, are part of words, etc.

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Using Datablocks (DB) in lieu of “M” memory

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Proper program structure: Separating into code blocks (re-usability)

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The distinction between and use of Functions (FC) and Function Blocks (FB)

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The various Organizational Blocks (OB) and their usage

The search and cross-reference functions of the software

The Help system in the software

#### 4 Use the Siemens Support site for assistance

Programming Guideline

[Click Here](#)

Programming Styleguide

[Click Here](#)

Application Examples (search for specifics)

[Click Here](#)

Function Libraries

\*search for libraries like screenshot

[Click Here](#)

Filter criteria for entries

Filter criteria for entries

All Products  My Products

Product tree

STEP 7 (TIA Portal) (399) library

Product: All Entry type: All Date: From - To

> Search product

#### 5 Contact ACD Engineering Support with questions during your software development

#### 6 Utilize PLCSIM (included with the software license) to test your program

Consider PLCSIM Advanced (Additional purchase)  
In addition to the usual PLC simulation, Advanced can also simulate:

[Click Here](#)

- Web server
- OPC UA
- Traces
- Motion
- Memory card simulation
- Process diagnostics
- S7 communication
- Know-how-protected blocks

#### 7 Learn to use the available Diagnostics

Diagnostics overview

[Click Here](#)

System diagnostics in the software

[Click Here](#)

Program diagnostics into your code

[Click Here](#)

[Click Here](#)



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