



# Andhra Pradesh State Skill Development Corporation



The image is a composite of two parts. On the left, there is a teal-colored graphic illustrating a Learning Management System (LMS). It features a central computer monitor displaying the 'LMS' logo, surrounded by various icons and labels: 'courses', 'documentation', 'tracking', 'e-learning management', 'education', 'system', 'software', and 'courses'. On the right, there is a photograph of three individuals (two men and one woman) wearing headsets and working on desktop computers in what appears to be a call center or customer service environment.

## Basics of PLC

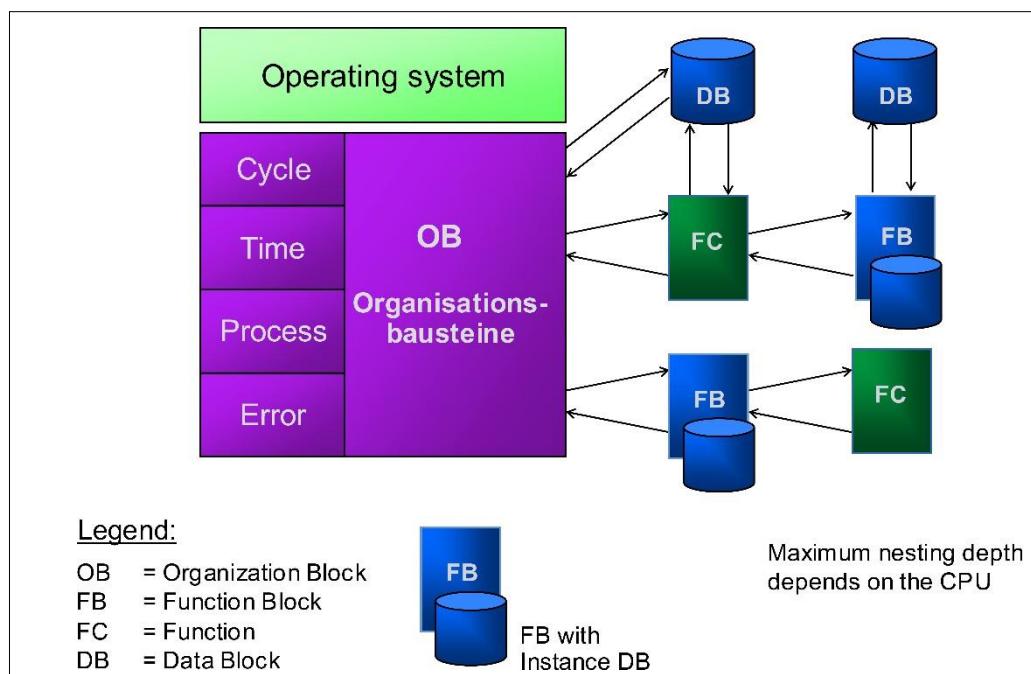
**Organization block (OB) and Function (FC) with an example each**



## Types of Program Blocks

### Blocks

The programmable logic controller provides various types of blocks in which the user program and the related data can be stored. Depending on the requirements of the process, the program can be structured in different blocks. You can use the entire operation set in all blocks (FB, FC and OB).



### Organization blocks(OBs)

Organization blocks (OBs) form the interface between the operating system and the user program. The entire program can be stored in OB1 that is cyclically called by the operating system (linear program) or the program can be divided and stored in several blocks (structured program).

### Function (FCs)

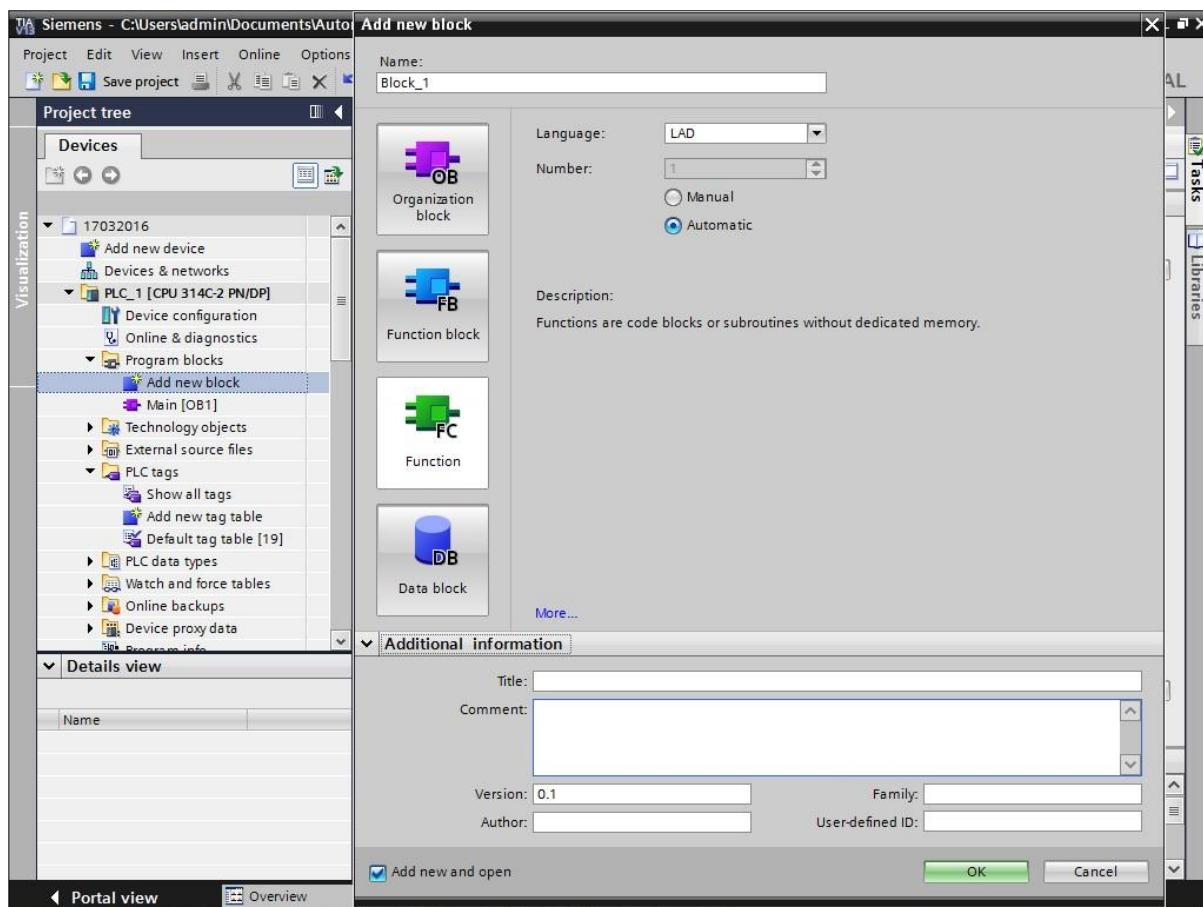
A function (FC) contains a partial functionality of the program. It is possible to program functions so that they can be assigned parameters. As a result, functions are also suited for programming recurring, complex partial functionalities such as calculations.



## Function Block(FBs)

Basically, function blocks offer the same possibilities as functions. In addition, function blocks have their own memory area in the form of instance data blocks. As a result, function blocks are suited for programming frequently recurring, complex functionalities such as closed-loop control tasks.

### Adding a NewBlock



### Inserting a block

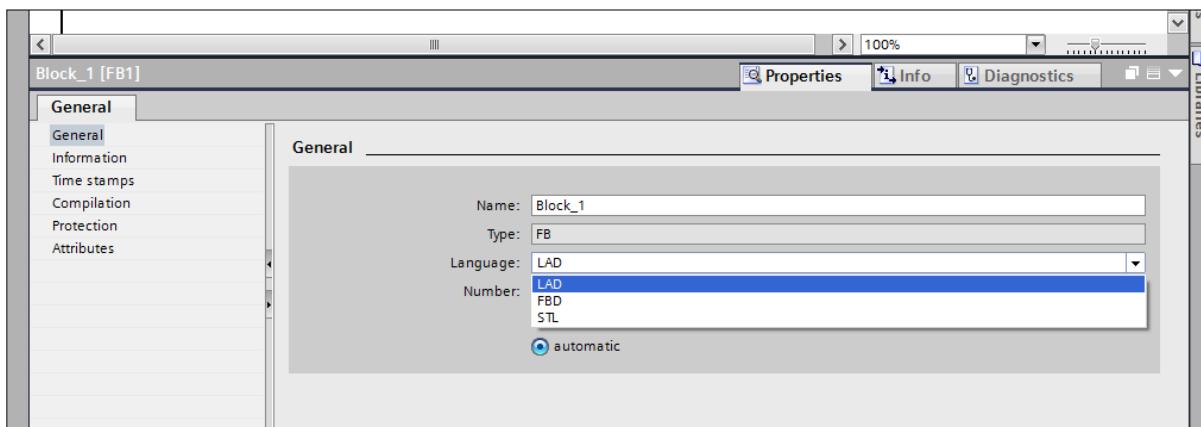
A new block is created as shown in the picture. When you create a block, the type of block (OB, FB, FC or DB), the programming language, the symbolic name and number, among other things, must be defined. The block numbers can also be assigned



automatically or manually. Under "Further information", the block can be documented in more detail, among other things, with a Version number and an Author.

### **Block Properties: Programming Language**

Each block has certain properties that you can display and edit. These properties are used to:



- Identify the block
- Display the memory requirements and the compilation status of the block
- Display the time stamp
- Display the reference information
- Specify the  
access protection Block  
parameters

Organization blocks have block parameters that you can use to parameterize specific responses, e.g. assignment of an event to an organization block.