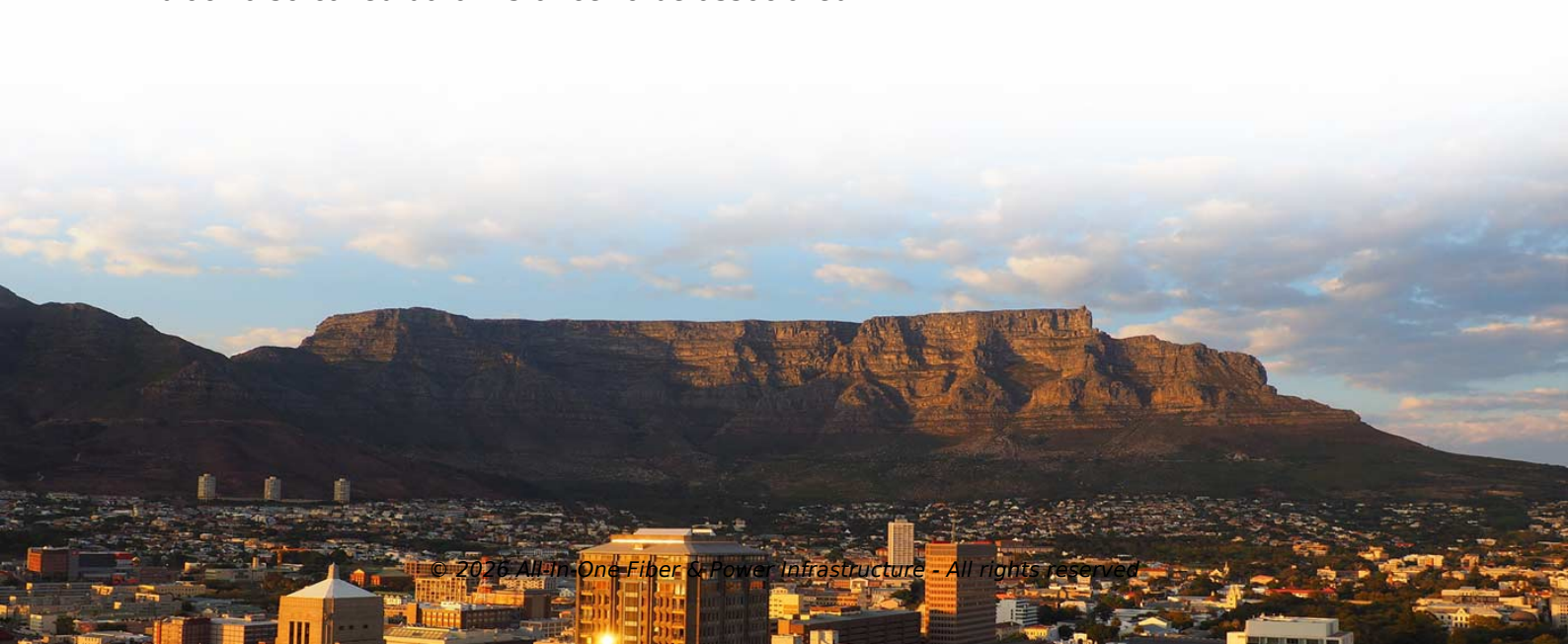


FB is passed as a variable to FC through the input interface



Overview

All FC parameters are passed by pointer rather than by value so it doesn't matter if it's a bool or a UDT, the processing is the same. For FB's simple variables (BOOL, INT etc. FBs and FCs receive parameters through the IN and IN/OUT interface types. When the user program passes a parameter to a FB_init is always implicitly available and is generally called in order to perform the standard initialization (implicit call). If the explicitly defined. Both FCs and FBs are useful where a certain sequence of logic needs to be repeated and/or re-used in multiple places, but with different inputs and outputs. An example would be level control of several otherwise identical tanks, where the control algorithm involves more than a Start/Stop Circuit. Function Blocks can also use temporary variables, which exist only during a single program cycle and are not saved in the instance DB. Function Blocks are different from Functions (FC), as Functions do. A Function Block is a reusable block that can store data between scans. When calling a function block into your code you will be asked to assign a data block also called data instance to be associated with.



Article Content

Jul 18, 2025

Passing parameters to blocks

FBs and FCs receive parameters through the IN and IN/OUT interface types. The blocks process the parameters and return values to the caller through the IN/OUT and OUT interface types.

May 20, 2026

Why are the local data and the block parameters for the functions ...

Table 2 When you call a function (FC), observe the rules below for the parameters of the input and output variables and also for the in/out parameters: All formal parameters must be given

Aug 07, 2025

How to Create and Use Function Blocks in Siemens TIA

In this example, we create a simple Function Block (FB) using SCL, which includes both input and output parameters. Defining parameters is an

Sep 19, 2025

Function block (FB)

By designing the FB for generic control tasks, you can reuse the FB for multiple devices by selecting different instance DBs for different calls of the FB. An FB stores the Input, Output, and

Apr 01, 2026

Siemens FB/FC parameterize the inputs and outputs : r/PLC

We have a few FB's and/or FC's we are building up to use over, and over, and over, as well as standardizing our UDT's for AI/AO/DI/DO. Is there a way we can build the FB/FC such that we can

Mar 12, 2026

Getting Started With Function Blocks (FB) in TIA Portal

Getting Started With Function Blocks (FB) in TIA Portal Recap: What we Left Off In Part 2 of this series, we explored the use of Functions (FCs) in

Sep 03, 2025

Getting Started With Function Blocks (FB) in TIA Portal

Edge detection inside an FB ensures events are captured reliably, even in auto mode. This same pattern can be extended to multiple conveyors

Feb 01, 2026

Function inputs in Siemens TIA Portal | PLCtalk

The way a FB works is that input or input/output values are passed to internal variables & used within the FB, in/out are essentially passed in &

Sep 16, 2025

Passing a BlockDB as a parameter two levels deep

Hi dear Chartier, Declaring Block_DB as a parameter type is only permitted in VAR_INPUT part of a SCL block, or as INPUT in FBD/STL/LAD interface section. But as I have

May 05, 2026

TIA portal

I guess that he is a classically trained computer programmer where you always pass variables to a function and receive an answer back as a Return Value. You are never supposed to

Aug 16, 2025

Lesson 15

Learn about using a Function block (FB) with Simatic STEP 7 in TIA Portal.

Jul 01, 2025

Tia Portal - Different Instances of Calling a Function Block

Contents: What is a function block FB? Different options of data instances. Single Instance. Parameter Instance. Multi-instance. What is a

Nov 01, 2025

Tia Portal - Different Instances of Calling a Function Block

In this article, we will talk about PLC data block instances of different function block types in Siemens Tia Portal and when to use them. In a previous

Jul 28, 2025

TIA-Portal Unterschiede FC

TIA-Portal Unterschiede FC - FB ... spshaus GmbH Benzenwiesstrasse 3 CH-8572 Berg TG +41 (0)71 636 23 03 info@spshaus

Aug 03, 2025

How to retrieve Interface variables of a function block (FB) in TIA ...

I am working with the TIA Portal Openness API and trying to retrieve interface variables (like Input, Output, InOut) of a specific Function Block (FB). I have successfully accessed the block,

Feb 17, 2026

Siemens S7 TIA Portal

Both FCs and FBs are useful where a certain sequence of logic needs to be repeated and/or re-used in multiple places, but with different inputs and outputs.

Apr 20, 2026

Input/Output Variables

A VAR_IN_OUT variable is an input and output variable that is part of a function block interface and serves as a formal pass-through parameter...

Oct 24, 2025

TIA Portal VFD

TIA Portal VFD - FB Control Block with Inputs & Outputs #tiaportal #plcprogramming #plc #plctraining PLCskilltree 17.5K subscribers Subscribe

May 25, 2026

Difference between FC and FB in Siemens PLC

In FB, we can leave any of the parameters such as In, Out, In-Out with no address. I hope you like this article about the difference between FC and FB in Siemens

May 08, 2026

Difference between FC and FB in s7?

An FC should never have reason to call an FB. The FC should operate on its input parameters and output the result through its output parameters. As Mr. Chartier has said, there may

May 06, 2026

Passing parameters to blocks

Function Blocks (FB) and Functions (FC) have three different interface types: IN IN/OUT OUT FBs and FCs receive parameters through the IN and IN/OUT interface types. The blocks

Nov 30, 2025

Difference between Functions (FC) and Function Blocks (FB) in

Difference between Functions (FC) and Function Blocks (FB) in Siemens PLC Programming This article highlights the difference between functions and function blocks in Siemens

Aug 26, 2025

DB parameter variable pass to a FC from a FB

Hi,Ilooked everywhere but I did not find appropriate answers.I like to pass a DB parameter to a FC inside a FB.The DB is a parameter passed to the FB low you can find the

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