FATEK®

FBs-CBMATH

Introduction

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1. Product brief

FBs-CBMATH is a dedicated extension board which can be equipped on FBs PLC CPU modules to enhance the calculation ability. Working as an independent arithmetic logic, including addition, subtraction, multiplication, and division on integers as well as floating points, FBs-CBMATH processes request from CPU modules and return calculation result within only milliseconds, making FBs PLC capable of handling more complicated arithmetic need in a variety of applications.

2. System Architecture

Figure 1 shows the general operation process of CBMATH module. The custom arithmetic core part is where we program based on the desired algorithm or formula provided by customers.

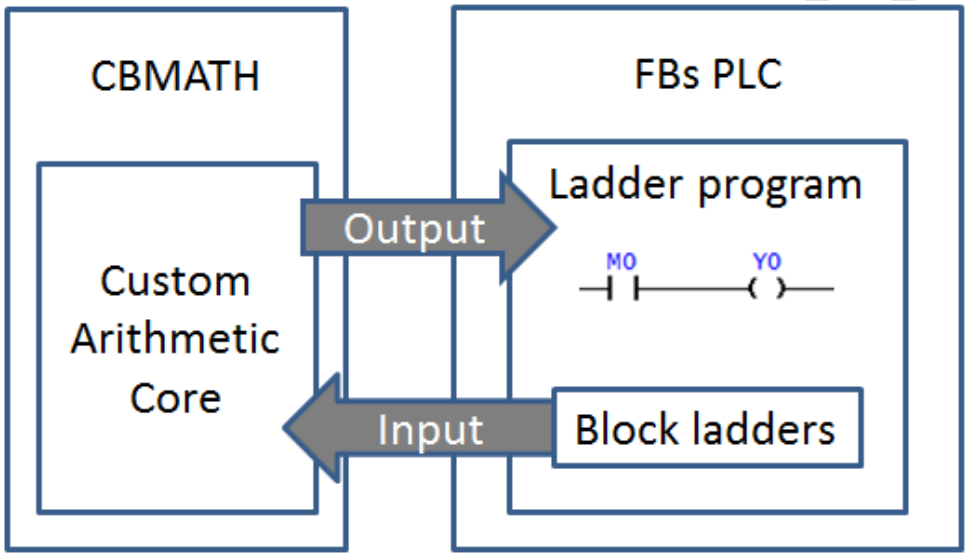

Figure 1 General process for use of CBMATH

3. The process of customization

The arithmetic requirement or a formula is usually composed of an input set, an output set, and an arithmetic core. Customers should provide us with the desired algorithm and preferable ways to use it, as well as the calculation time constraint, so we can evaluate the effort and feasibility.

4. Firmware Upgrade

CBMATH supports upgrading firmware for future improvement or potential bug fixes. Please be aware that, because the reserved PLC register area for CBMATH is shared by arithmetic

operation and firmware upgrade, the PLC has to be put into STOP mode before upgrade. There will be a warning reminder while using the dedicated utility.

Main menu:

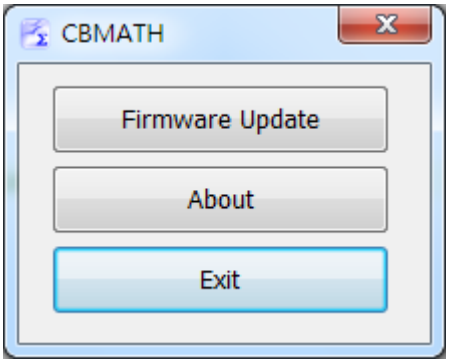

Figure 2 CBMATH Configurator main menu

Firmware update:

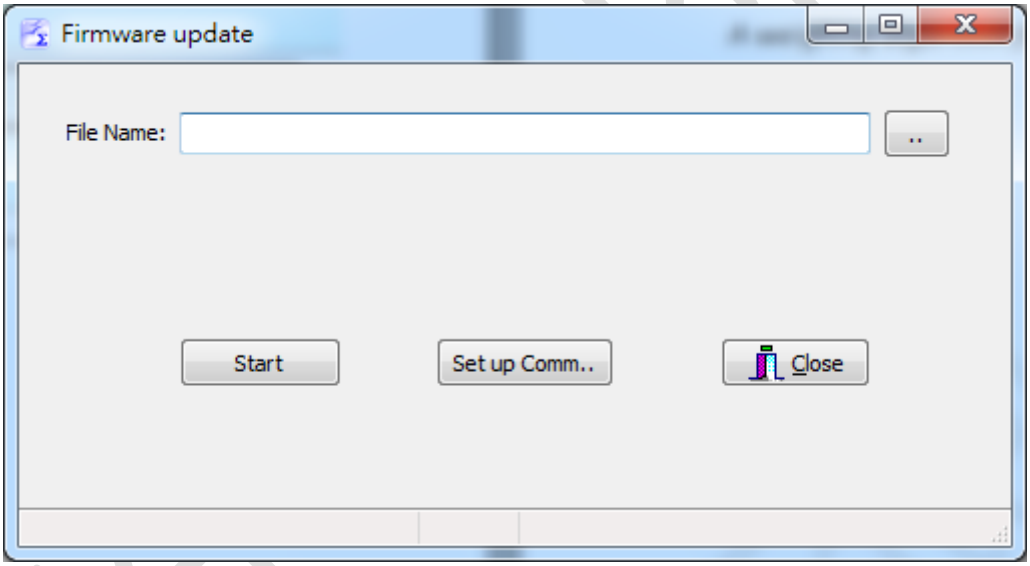

Figure 3 CBMATH Configurator firmware update window