

# CODESYS SoftMotion

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## Other related articles

- [OLH: For the CODESYS SoftMotion and CODESYS SoftMotion Light Add-ons](#)
- [See our Diagnosis in case of Performance Problems under SoftMotion](#)
- [Our CODESYS Online Help \(OLH\)](#)
- [Our Codesys Store](#)
- [Basic information to the Codesys Development System \(Codesys Homepage\)](#)
- [Codesys Engineering](#), for professional IEC 61131-3 applications for technicians and software engineers
- [OLH: The Online-help introduction for the Codesys Development System \(IDE\)](#)
- [The old Codesys Online Help Website \(pre SP18 link\)](#)

## FAQ

- Can this be changed?
- How can I check how many movements I can still send into the FB (functionblock)?
- Is there a queue where I can see this status?

### Answer:

The internal buffer currently contains 15 movements.  
This is not limited per cycle, but globally.

When a movement is accepted, it is stored in this buffer.  
Once it is completed or aborted, it is removed from the buffer again.

Aborting movements and stop/stops are handled separately.  
They are (in most cases) accepted immediately.

Currently, it is not possible to check how many movements still fit into the buffer.  
This can only be read from the '*CommandAccepted*' output (FALSE => buffer is full).

In this case, you can continue to call the motion functionblock in the next cycles, until it returns '*CommandAccepted*'.

- When using the SMC3\_BrakeControl FB, an error message *SMC\_WP\_DRIVE\_PARAMETER\_NOT\_MAPPED* is given.
- Drive documentation, for mapping drive parameters, may advise to manually override the brake control.
- Using MC\_WriteParameter, will get the same *SMC\_WP\_DRIVE\_PARAMETER\_NOT\_MAPPED* error.

### Answer:

MC\_WriteParameter is used for writing SoftMotion parameters, which are different from SoE objects.



With the [SoftMotion version 4.14.0.0](#) there will be a function block [SMC\\_ParameterNumber\\_SoE](#) that converts from an SoE object to a SoftMotion parameter number.

The conversion can also be done as follows:

```

VAR
    /// The IDN
    IDN : UINT;
    /// 2: Name, 3: Attribute, 4: Unit, 5: Minimum, 6: Maximum, 0 or 7: Value
    element : USINT;
    /// The data length in bytes (1, 2, or 4).
    /// Only used when writing a parameter.
    dataLength : USINT;
END_VAR

parameterNumber :=
    -TO_DINT(SHL(TO_DWORD(dataLength AND 16#7), 28) +
        SHL(TO_DWORD(element AND 16#7), 16) +
        IDN);

```

Alternatively, one can use the standard function blocks for writing SoE objects, like [ETC\\_SoE\\_IDNWrite](#) or [ETC\\_SoE\\_IDNWrite4](#).