Additional logic function blocks

Features

- An extensive number of logic circuits are available
- Used for user specific configurations
- Easy to implement with the configuration and parameter setting tool CAP 540

Application

Different protection, control, and monitoring functions within the REx 5xx terminals are quite independent as far as their configuration in the terminal is concerned. The user cannot enter and change the basic algorithms for different functions, because they are located in the digital signal processors and extensively type tested. The user can configure different functions in the terminals to suit special requirements for different applications.

For this purpose, configurable logic circuits are needed to configure the terminals to meet user needs and also to build in some special logic circuits, which use different logic gates and timers.

With additional configurable logic means that an extended number of logic circuits are available. Also Move function blocks (MOF, MOL), used for synchronization of boolean signals sent between logics with slow and fast execution, are among the additional configurable logic circuits.

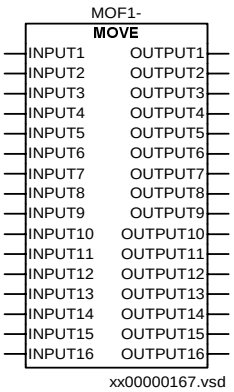
Functionality

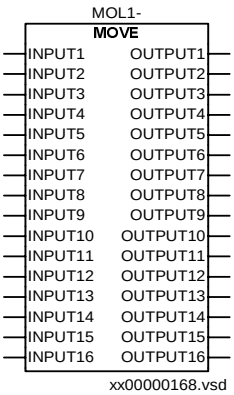
The functionality of the additional logic function blocks are the same as for the basic logic functions, but with an extended number of blocks.

The Move function block MOF is put first in the slow logic and is used for signals coming from fast logic into the slow logic. The MOF function block is only a temporary storage for the signals and does not change any value between input and output.

The Move function block MOL is put last in the slow logic and is used for signals going out from the slow logic to the fast logic. The MOL function block is only a temporary storage for the signals and does not change any value between input and output.

Function block





Input and output signals

Table 1: Input signals for the MOFx function block

Signal	Description
INPUTn	Input n (n=1-16) to MOFx

Table 2: Output signals for the MOFx function block

Signal	Description
OUTPUTn	Output n (n=1-16) from MOFx

Table 3: Input signals for the MOLx function block

Signal	Description
INPUTn	Input n (n=1-16) to MOLx

Table 4: Output signals for the MOLx function block

Signal	Description
OUTPUTn	Output n (n=1-16) from MOLx

Technical data

Table 5: Additional logic function blocks

Update rate	Block	Availability
6 ms	TP	40 pulse timers
200 ms	AND	239 gates
	OR	159 gates
	INV	59 inverters
	MOF	3 registers
	MOL	3 registers

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