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Faller

Manufacture Model Railway accessories and buildings. Faller road system MERG TBA36/1&/2 - merg members only

FallerCarSystem

Batter powered H0 vehicles with a steering rack fitted with a small magnet. The vehicle follows an iron wire hidden in the roadway.

Fast clock

Is use in time table model railway operation where the time goes faster There is a MERG TB A32/2 MERG kit for members

FCU

FCU (FLiM Configuration Utility) A Windows based software program by Roger Healey used to configure CBus systems.
CBus resources page

Feathers

Term used for the 'route indicator' on colour light signals comprising 5 white lights at an angle to indicate the diverging route.

FET

The Field Effect Transistor is a solid-state device which enables us to use one electrical signal to control another. The name ‘transistor' is a shortened version of the original term 'transfer resistor', which indicates how the device works. Most transistors have three connections. The voltage on (or current into/out of) one wire has the effect of controlling the ease with which current can move between the other two terminals. The effect is to make a resistance whose value can be altered by

the input signal. We can use this behaviour to transfer patterns of signal fluctuation from a small input signal to a larger output signal. MERG TB G12/1 - merg members only.
Field-effect Transistor
http://www.st-andrews.ac.uk/~www_pa/Scots_Guide/first11/part7/page1.html

FIFO

First In First Out, refers to a data buffer, sometimes called a “Circular Buffer” or “Ring Buffer”, where the data is extracted in the same order as it was entered. Used to store data temporarily where data may be produced faster than it can be used, thus preventing the producer being held up by the consumer.

Firmware

A computer program that is held in non-volatile memory such as EPROM or flash memory. A PIC processor has a small amount of RAM used for variables and a much larger flash memory for program.

Flag

A 'Flag' is a single 'Bit' of information that can either be 'True', 'On', 'Set' (1) or 'False', 'Off', 'Clear' (0). Flags most often are in sets of 8 (a Byte) but not always. As an example, in the CANACC8, one of the first CBUS modules, each learnt event has two EVs (Event Variables), these are actually 'Flag Bytes' and each 'Bit' is directly associated with one of the outputs. In the first byte if a 'Bit' or 'Flag' is set (1) then that event acts on the corresponding output, an ON event will switch the output on, an OFF event will turn it off. The second byte contains the 'Polarity Flags' these only have meaning if the matching flag in the first byte is set and have the effect of inverting the action performed on the output. So if say bits 0 & 1 are set in the first byte and bit 1 is set in the second the result will be that an On event will switch output 1 on and output 2 off.

Flash Memory

Flash Memory is an electronic (solid-state) non-volatile computer storage medium that can be electrically erased and reprogrammed.

FLiM

Full Layout implementation Model. A method for setting up a CBus layout using a configuration utility program see FCU. As opposed to SLiM
CBus resources page

Flip flop

“Flip Flop” is the common name given to a two-stage device, which offer basic memory for sequential operation. Flips flops are heavily used for digital data transfer and are commonly used in banks called “registers for the storage of binary numerical data.
Flip-flop (electronics)

FM

Frequency Modulation. The process of varying the carrier frequency with the modulation frequency thus enabling the signal to have a constant amplitude, mainly used at Very High Frequencies 90-110MHz broadcasts, this enables verygood noise control. More complex than AM as it requires a special demodulator to obtain the information.

Frequency

Frequency is the measurement of the number of times that a repeated event occurs per unit of time.
Frequency

FSM

A Finite State Machine is a system which can be in one of a fixed number of states at any one time. An FSM can be modelled in a computer program. See Finite State Machine

FTDI

Future Technology Devices International supply connecting devices. It has come to be used as the generic name for such devices.

Fuse

This a protection device to protect power supplies, cabling and devices from the effects of excessive current. Typically a short length of wire can carry the rated current indefinitely, but melts (blows) when the current exceeds the rating. A quick blow fuse will blow in a short time after the rating is exceeded and is used to protect sensitive components like semiconductors. A slow blow fuse can carry excess current for a considerable period (50% excess for half an hour is common) and is commonly used to protect cables- the fuse in a UK power plug is normally of this type.

Microcontroller fuses are programmable locations in non-volatile memory that define the hardware configuration of the microcontroller.

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