modbus\_new\_rtu(3)

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NAME

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modbus\_new\_rtu - create a libmodbus context for RTU

SYNOPSIS

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\*modbus\_t \*modbus\_new\_rtu(const char \*'device', int 'baud', char 'parity', int 'data\_bit', int 'stop\_bit');\*

DESCRIPTION

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The \*modbus\_new\_rtu()\* function shall allocate and initialize a \_modbus\_t\_

structure to communicate in RTU mode on a serial line.

The \_device\_ argument specifies the name of the serial port handled by the OS,

eg. "/dev/ttyS0" or "/dev/ttyUSB0". On Windows, it's necessary to prepend COM

name with "\\.\" for COM number greater than 9, eg. "\\\\.\\COM10". See

http://msdn.microsoft.com/en-us/library/aa365247(v=vs.85).aspx for details

The \_baud\_ argument specifies the baud rate of the communication, eg. 9600,

19200, 57600, 115200, etc.

The \_parity\_ argument can have one of the following values:::

\* \_N\_ for none

\* \_E\_ for even

\* \_O\_ for odd

The \_data\_bits\_ argument specifies the number of bits of data, the allowed

values are 5, 6, 7 and 8.

The \_stop\_bits\_ argument specifies the bits of stop, the allowed values are 1

and 2.

Once the \_modbus\_t\_ structure is initialized, you must set the slave of your

device with linkmb:modbus\_set\_slave[3] and connect to the serial bus with

linkmb:modbus\_connect[3].

RETURN VALUE

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The function shall return a pointer to a \_modbus\_t\_ structure if

successful. Otherwise it shall return NULL and set errno to one of the values

defined below.

ERRORS

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\*EINVAL\*::

An invalid argument was given.

EXAMPLE

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[source,c]

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modbus\_t \*ctx;

ctx = modbus\_new\_rtu("/dev/ttyUSB0", 115200, 'N', 8, 1);

if (ctx == NULL) {

fprintf(stderr, "Unable to create the libmodbus context\n");

return -1;

}

modbus\_set\_slave(ctx, YOUR\_DEVICE\_ID);

if (modbus\_connect(ctx) == -1) {

fprintf(stderr, "Connection failed: %s\n", modbus\_strerror(errno));

modbus\_free(ctx);

return -1;

}

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SEE ALSO

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linkmb:modbus\_new\_tcp[3]

linkmb:modbus\_free[3]

AUTHORS

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