

OCX AUREL User Manual

To develop an application program on your PC it's possible to take advantage of the OCX provided by AUREL rather than using the interfacing modules commands. That shape for the developers a further abstraction level comparing what the commands provides.

In this case it is necessary to install AUREL OCX, afterwards using it as a software component to develop the High level application system.

OCX offers functions, properties and events as better described later on.

Description is limited to the functions used only (parameters and comes back values).

To better realize the send commands through the OCX, please refer to "Commands User Manual XTR-ZB1 AUREL Module".

Properties:

Property Get OCX Version() as String

Back a string containing the OCX version

Property Get Commport() as Integer

Back as Integer containing the used COM port

Property Let Commport (COMPort ByVal as Integer)

Sets up of the COM port you want to use, and initializes the serial with its buffers and timers used by the OCX for the port management.

OCX use a buffer where the received strings from the XTR-ZB1 module, comes saved.

After that a 50ms timer will used to verify presence of strings into the buffer, a "StringReceived" or "DataReceived" event could be created.

Events

Public Event StringReceived (ByVal RecString as String)

Event created when the OCX detects a string presence into the buffer through the 50ms timer described above.

The Event gives back the string as was received by the serial.

Public Event DataReceived (ByVal ShortAddr as String, Data as String)

Event created when the OCX, through the 50ms timer described above, detects a string presence sent by a remote device through command SNT sending

(see “Commands User Manual XTR-ZB1 AUREL Module”).

The Event gives back the remote device Short Address (ShortAddr) sent by the string, and the useful data (Data) appropriately cleaned up as regards ones received on serial.

Public Event StringSent (ByVal SentString as String)

Event created when the OCX sends a string through serial.

The Event gives back the string

Public Event ErrorDetected (ErrorCode as Integer)

Event created when there is an error on serial.

The Event gives back the error code.

Functions

Public Sub AddItem (ByVal MACAddr As String)

This function sends to serial the command *CMD:03:MACAddr*; where “MACAddr” represents the MAC address of the device that seems can be part of network. (see “Commands User Manual XTR-ZB1 AUREL Module”)

Public Sub AskExAdrr (ByVal ShortAddr As String)

This function sends to serial the command *CMD:0F:ShortAddr*; where “ShortAddr” represents the Short address of the remote device that should receive the command via Radio.

Public Sub GetExAddr ()

This function sends to serial the command *CMD:11*;

Public Sub LockNet ()

This function sends to serial the command *CMD:0A:00*;

Public Sub PanInfo()

This function sends to serial the command *CMD:0D*;

Public Sub Ping (ByVal ShortAddr As String)

This function sends to serial the command *CMD:0E:ShortAddr*; where “ShortAddr” represents the Short address of the remote device that should receive the command via Radio.

Public Sub Reset ()

This function sends to serial the command *CMD:01*;

Public Sub ResetOutput (ByVal ShortAddr as String , ByVal Port s Integer)

This function sends to serial the command *CMD:0C:ShortAddr:Port*; where “ShortAddr” represents the Short address of the remote device that should receive the command via Radio, and Port represents the digital output that should be reset.

Comes run a check on the inserted parameters:

If ShortAddr is an empty string or its value is equal to “0000” and/or Port is a full negative, function doesn’t work.

Public Sub SendData (ByVal ShortAddr as String , ByVal Dati as String)

This function sends to serial the command *SNT:Shortaddr:#dati:Dati*; where #dati is the string “Data” lengths inserted as parameter.

Comes run a check on the inserted parameters:

If ShortAddr and/or Data are empty strings, function doesn’t work.

Public Sub SendDirectToCoordinator (ByVal Command as String)

This function sends to serial the command contained into the string “Command”

Comes run a check on the inserted parameter:

If “Command” is an empty string, function doesn’t work.

Public Sub SetKeepAlive (ByVal ShortAddr as String , ByVal ON/OFF as Integer)

If ON/OFF = 1 will be sent to serial the command *CMD:08:ShortAddr:FF*;

If ON/OFF = 0 will be sent to serial the command *CMD:08:ShortAddr:00*;

where “ShortAddr” represents the Short address of the remote device that should receive the command via Radio

Public Sub SetNewRate (ByVal Rate as Long , ByVal ShortAddr as String)

This function sends to serial the command *CMD:05:addr:NewRate*; where NewRate is the conversion in minutes and seconds of the Rate parameter that represents the cyclical rate transmission in ms

Following to the command CMD:05 will be sent the command CMD:06; also

Public Sub SetOutput (ByVal ShortAddr as String , ByVal Port as Integer)

This function sends to serial the command *CMD:0C:ShortAddr:Port*; where “ShortAddr” represents the Short address of the remote device that should receive the command via Radio, and Port represents the digital output that should be set.

Comes run a check on the inserted parameters:

If ShortAddr is an empty string or its value is equal to “0000” and/or Port is a full negative, function doesn’t work.

Public Sub SetPollRate (ByVal PollRate as Long , ByVal Shortaddr as String)

This function sends to serial the command *CMD:09:Shortaddr:NewPollRate*; where ShortAddr represents the Short address of the end device that should receive the command via Radio, and NewPollRate is the conversion in Hexadecimal of the PollRate parameter, that represents the end device Poll Rate in ms.

Public Sub SetRfCH (ByVal RfCH as Integer)

This function sends to serial the command *CMD:07:RfChannel*; where RfChannel is the conversion in Hexadecimal of RfCH parameter that represent the new channel where will installed the network. The RfCH parameter can take up values from 11 to 26 or 0. può assumere i valori da 11 a 26 e 0 (RfChannel = 27 = channel spacing).

Comes run a check on the inserted RfCH parameter: If the value is less than 11 or bigger than 26 and different from 0, function doesn’t work.

Public Sub StartNet ()

This function sends to serial the command *CMD:04*;

Public Sub StartOPERATIONS ()

This function initializes the serial port, buffer and timer used by the.

Must be used into the application program during the initialization after the setting of the used serial port.

Public Sub StopOPERATIONS ()

This function disables the timer used by the OCX for serial handling

Public Sub UnlockNet ()

This function sends to serial the command *CMD:0A:FF;*