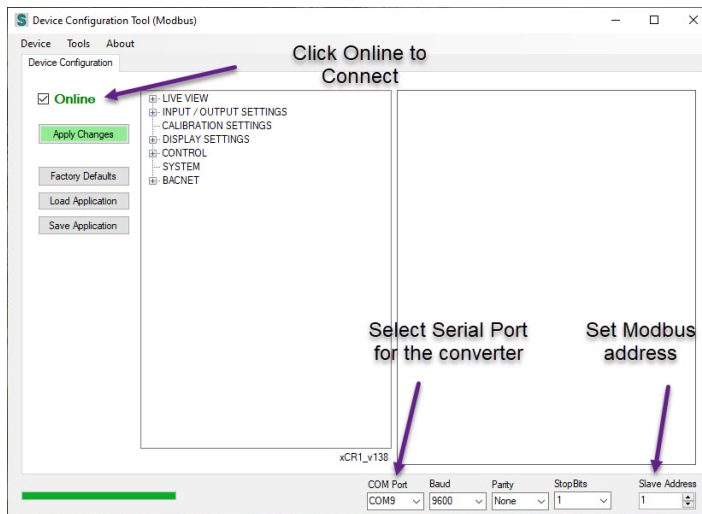


DEVICE MODBUS CONFIGURATION TOOL for Smart Sensors and Room Controllers



The Device Modbus Configuration tool is MS Windows based configuration tool that can be used for the Smart Room Sensor and Intelligent Room Controller configuration over the Modbus RS485 communications network. The software is used to program Modbus controller/sensor versions allowing the configuration of the devices without the need to create Modbus parameter map.

Using the tool the device configuration can be changed to the site requirements, and a backup can be stored to the local computer. Using backups it is easy and fast to copy configuration from one device to other in case where multiple same type of devices are deployed on the project.

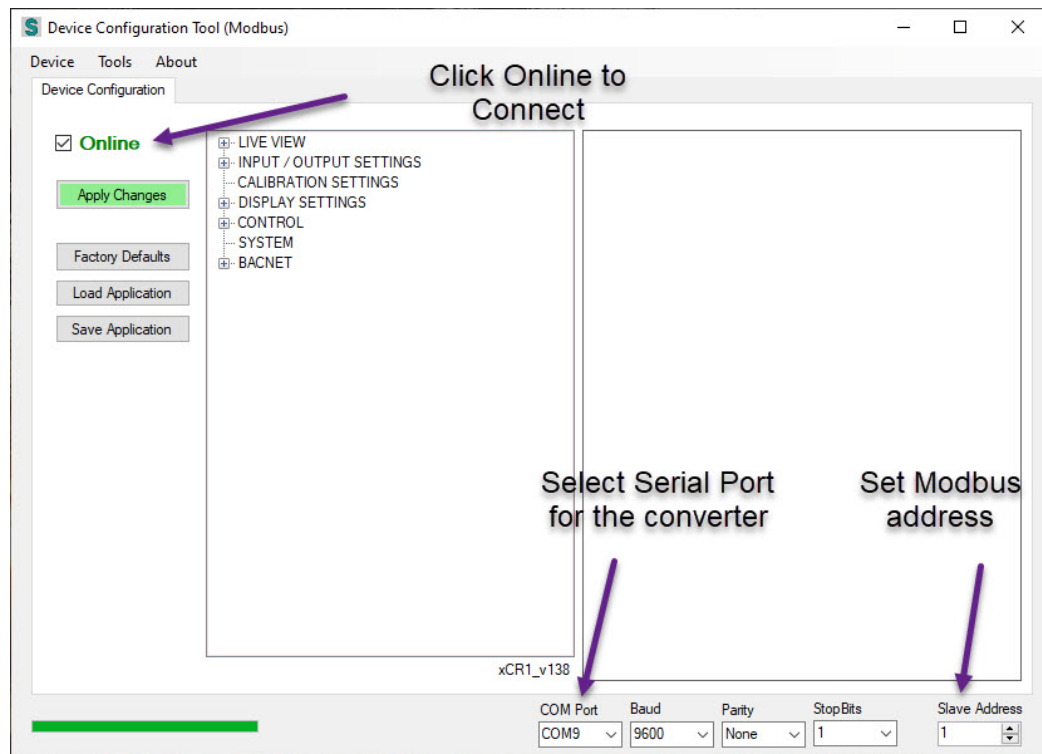
Features

- Windows 10/11 based Device Configuration Tool over the Modbus RS485 Communication Network
- Used for the xER (QER/TER/MER/VER-MOD) sensor and xCR (QCR10/TER10/QCR11/TER11-MOD) controller configuration (Modbus versions)
- On connection the appropriate Device Template is automatically loaded building the Modbus parameter map
- Can be used to backup and restore the device application configuration settings over the Modbus
- Offline mode for configuration without device connection

Connecting the Tool to Device

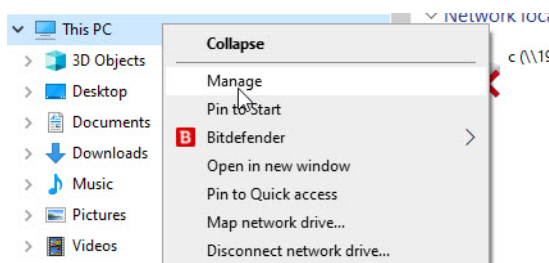
The Modbus configuration tool is connected using a Serial to RS485 converter (e.g. ADAM-4561 or similar) to the Modbus communication network or to the A+ and B- terminals of the Controller/Sensor. The Serial Converter creates 'Virtual COM Port' that is used with the Modbus tool for the connection.

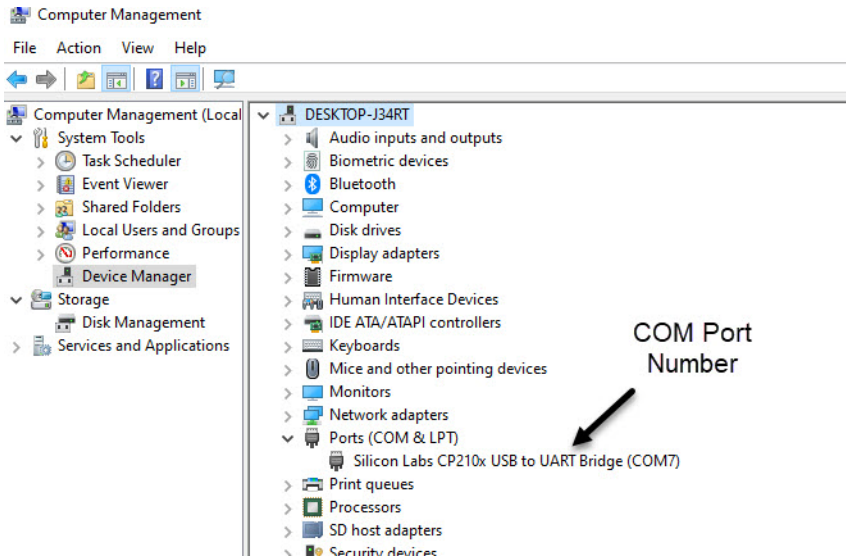
- Select the 'COM Port' for the Serial to RS485 Converter
- Set the Modbus Communications settings for the device (default 9600/None/1).
- Set the 'Slave Address' of the Device (default 1).
- Select 'Online' to connect to the device .
- The tool will automatically map the device to the Device Template file that includes all configuration parameters for the device.



Finding Out the Com Port

To find out to which COM port Serial to RS485 converter is connected go to the *Device Manager* and check *Ports (COM&LPT)* menu. If the Serial to RS485 converter has been correctly installed you should see it's COM port number. Refer to the manufacturer's documentation for further information.



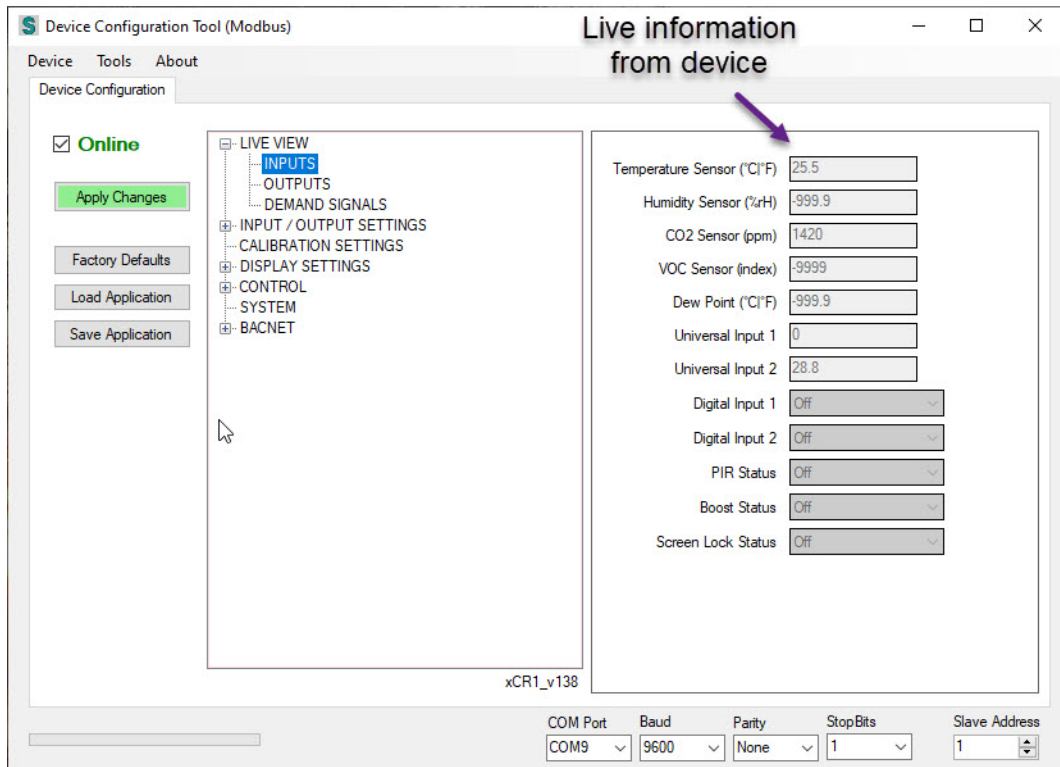


Live View

After connecting to the device open the Live View menus to see the current status of the device. The Status Bar on the bottom left corner of the tool indicates the polling of the Device.

The status information of the device is updated on the right hand side of the screen.

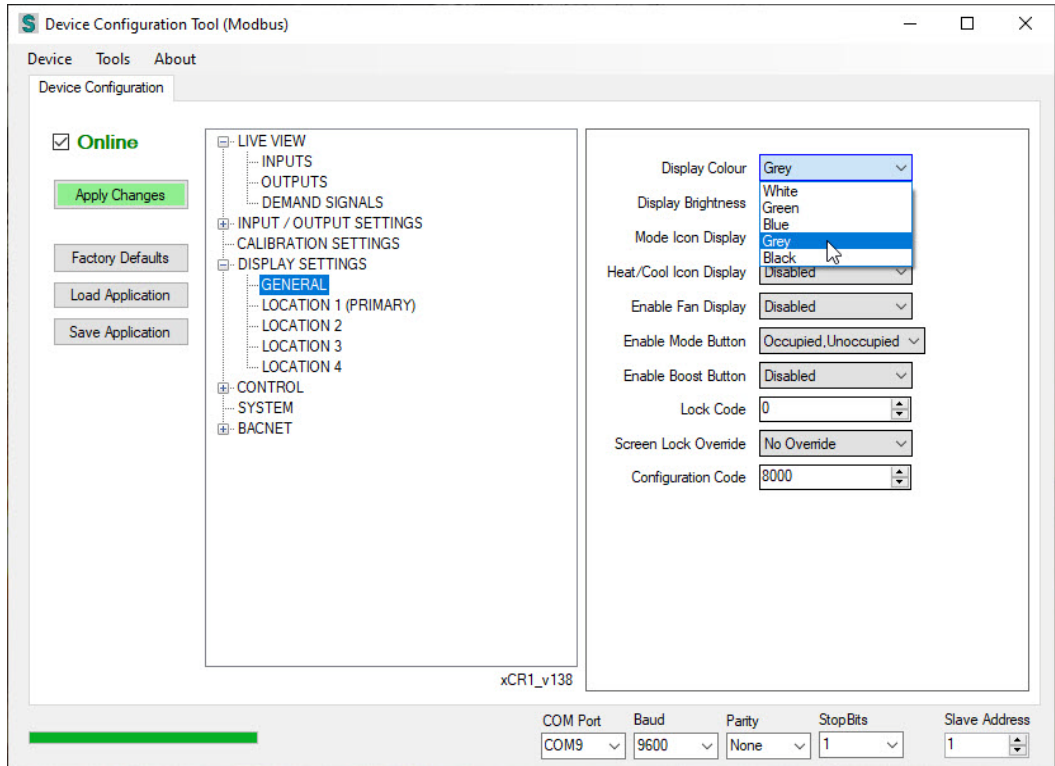
TIP: The parameters displayed on the tool reflect the connected device. E.g. if the tool is connector to (QER/TER/MER/VER) sensors then refer to their data sheet for the Modbus parameter info.



Configuring the Device

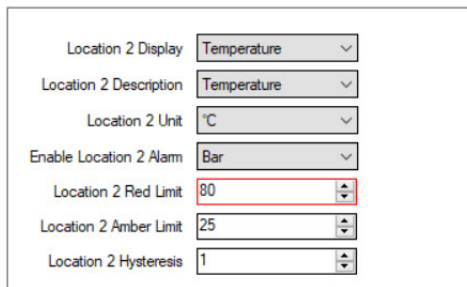
To configure the device, open the configuration menus and the change the settings on the right hand side of the window.

- On the dropdown boxes select the required option
- On the value fields either type in the new required value or use up&down arrows to change the value

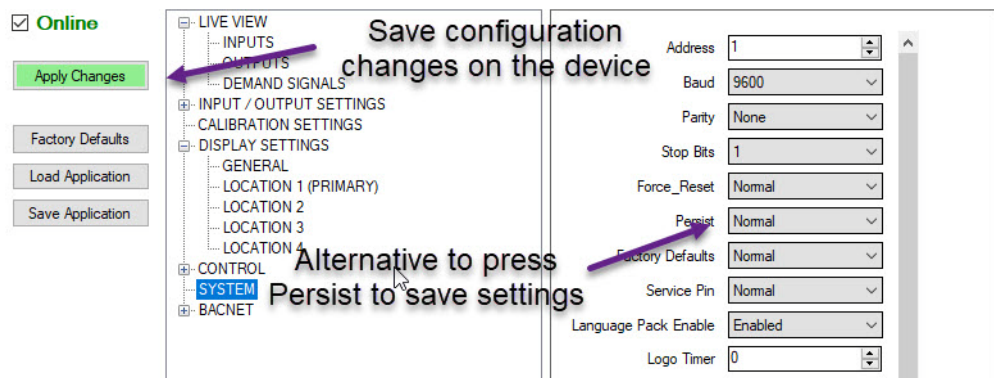


After changing the value, the frame around the box changes to 'Red' indicating that it has been changed but not yet transmitted to the device.

After pressing enter on the Keyboard or on de-focus, the new value is transmitted to the device.



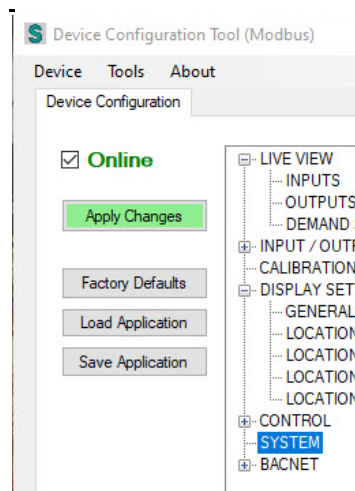
NOTE: After changing the parameters it is important that the new settings are stored in the non-volatile memory. Otherwise the settings are lost during the reset/power cycle. Use the 'Apply Changes' button to store settings permanently. Alternatively use 'Persist' parameter in the 'System' menu.



Device and Application Profile Buttons

The tool has the following buttons:-

- *'Online'* - to connect to the device and identify the connected device (matches the device template)
- *'Apply Changes'*- sends the message to store the device settings to the non-volatile memory and resets the device.
- *'Factory Defaults'*- load factory defaults to the device.
- *'Device - Read All Settings'*- uploads all device data to the software tool.
- *'Load Application'* is used to load the saved application profile backup to the Modbus Device Configuration Tool software. If the Online flag is set on the bottom of the screen, the loaded application is automatically downloaded to the device.
- *'Save Application'* is used to save the Device application configuration settings to computer's hard drive for backup. If the device is Online, then the configuration settings are first Uploaded from the Device.



Menus

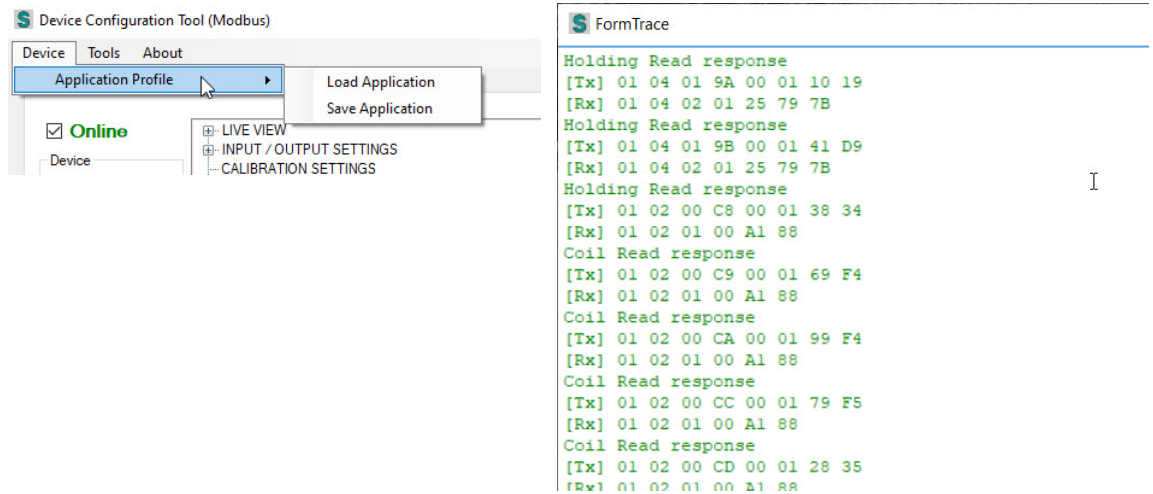
The tool has also menu that replicates the button functionality.

Device Menu

- *'Connect'* connects to the device and loads the device template.
- *'Application Profile'* allows the device configuration to be saved and loaded from the hard disk.

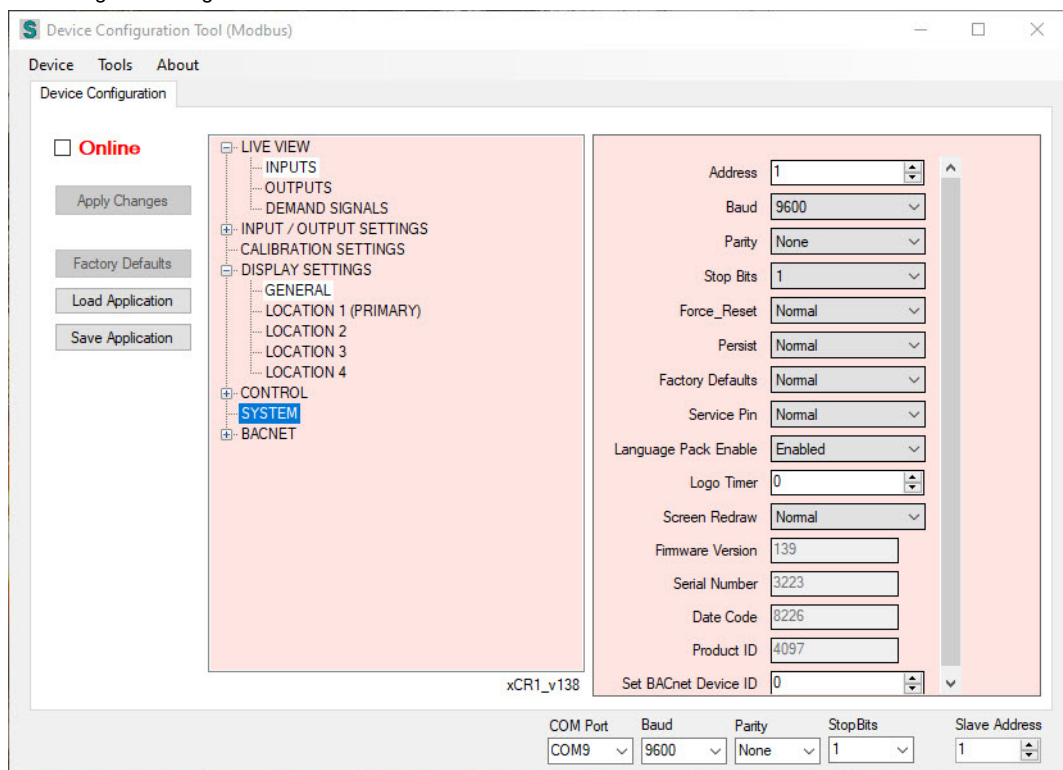
Tools Menu

- *'Comms Trace'* allows viewing the underlying Modbus communication messages.



Offline Configuration

It is possible to configure the application offline without the need of connection to the device. This is done by 'Unticking' the Online flag. The tool goes to 'Offline' mode.



By using the 'Load Application' it is possible to load the existing device application to the tool. After loading the application the devices configuration can be altered from the tree menu.

Once the configuration changes have been completed, use 'Save Application' button to save the configuration to the hard drive.

NOTE: The 'default applications' folder on the tool has the default application configuration files for the devices. These can be used if there is no existing backup of the device.