Remote Monitoring Systems

Dynamic Message Editing

Messages can be dynamically edited by the portal using current data from the device before sending. This includes adding location data, terminal voltages and states, output states and device received signal strength.

Similarly, tones can be added to telephone calls in order for those tones to be played during a call.

To modify a message the ~ symbol is used before the instruction character followed by the specific input or output number (where applicable).

To receive the voltage of input 1 and 8 when a message is emailed, the message text box should contain the following text

~v1   this adds the latest known voltage of input 1 to the message
~v8   this adds the latest known voltage of input 8 to the message

Note, it does not have to be the triggered input for the information to be added.

Action	Instruction	Option
Display input state (High/Low)	**~in**	**n = input number**
Display input terminal voltage (V)	**~vn**	**n = input number**
Display output relay state	**~on**	**n = output number**
Display signal	**~c**	
Display location	**~g**	
Play tone (during call)	**~n**	**n = tone number**

Example:

Input Message Text:

Inputs 1 and 8 ~i1(~v1) ~i5(~v8) Signal: ~c Out1/2: ~o1 ~o2

~g

Email Message Received:

Device Name

Inputs 1 and 8 Low(27.3v) Low(00.0v) Signal: 24 Out1/2: Active (On) Deactivated (Off)

Click for map Lat: 53.3865163, Lon: -2.9086452

Limitations

The data is retrieved from the last known input/output data sent by the device. The portal does not contact to the device at the time of sending to retrieve new data. However, when an event is generated by a change in state of the terminals, the device will send terminal and signal data prior to the trigger event being sent to the portal particularly where a hold time is in use. This ensures the latest data recorded on the portal is fairly recent.

The geolocation data requires the device to be online. Location coordinates are obtained using a combination of last known signal strength and current cell identification info from the network. This information is sent to Google to return the approximate latitude and longitude of the device from the Google database.

NB-IoT networks do not currently return a valid location.

Adding Tones to Text-To-Speech Calls

To play a DTMF tone during a call the number is added straight after the ~ symbol. The w character is used to create a pause between tones.

Example

~1w2w34

The above plays 1, (pause), 2, (pause), 3, 4