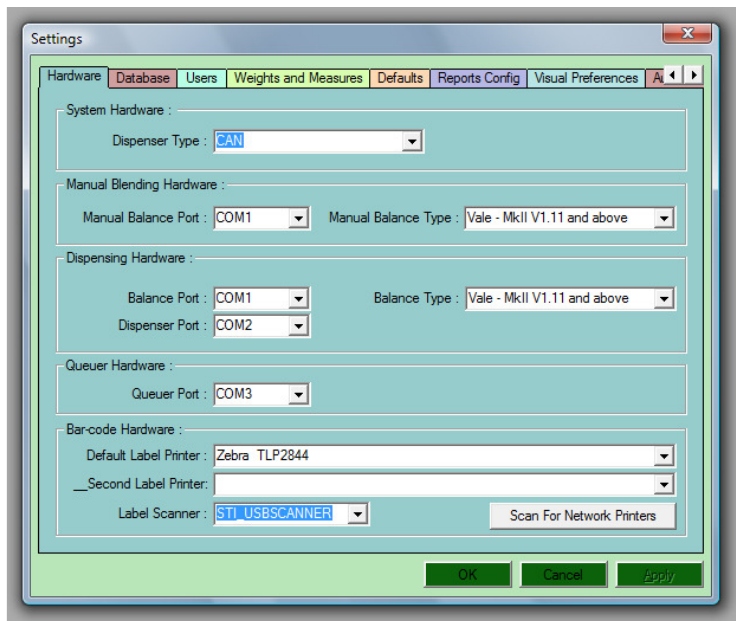
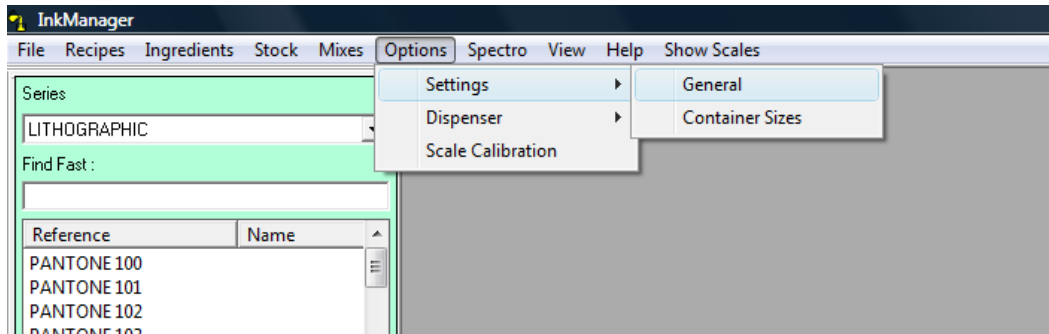


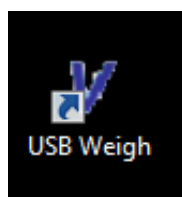
Basic Calibration of V2.0? Scales using USB Weigh

If, for any reason, calibration cannot be performed on the ValeScale Mkii V2.03 and above scale using InkManager, the supplied USB Weigh can be used. If the software cannot be found on the system or on the support website, please request a copy from Vale-Tech Ltd Technical Support.

With USB Weigh installed and the scale connected, determine the com port the scale is attached to on the PC, this should be set in the Hardware tab of settings in InkManager, in this example Com1 is the port used on the scale:



Having established the Com port, close the Settings window and InkManager. Locate the USB Weigh icon on the desktop as shown below, if the icon cannot be found, use the link from the Vale Tech program group within USB Weigh.



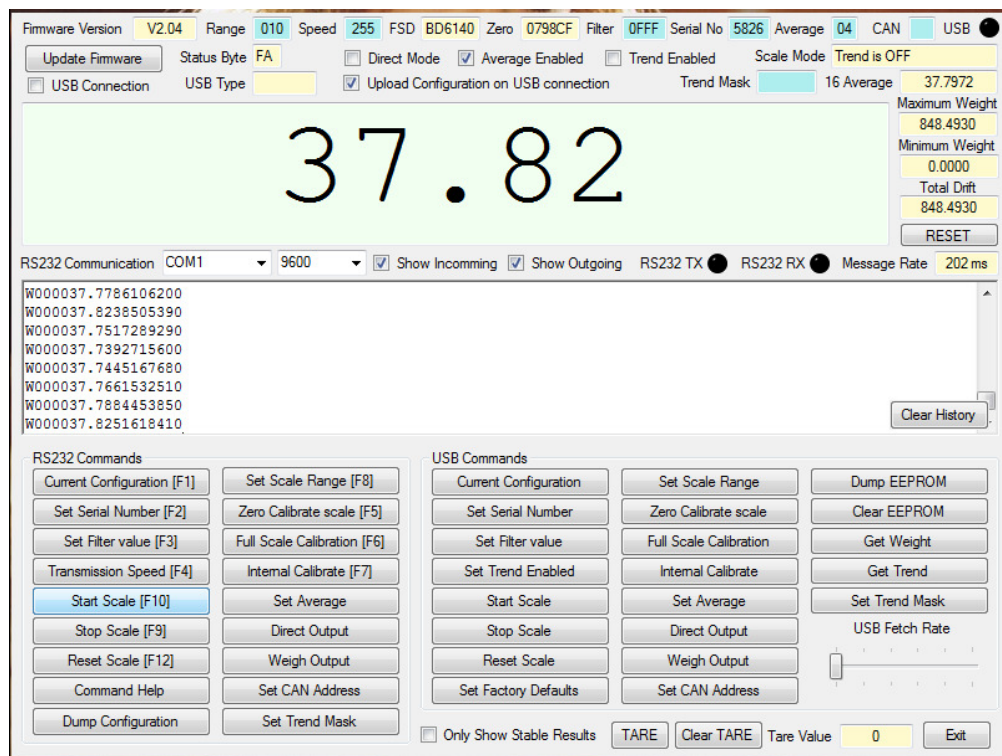
Double click the icon and USB Weigh will launch displaying the following window:

The screenshot shows the USB Weigh software interface. At the top, there are several tabs: Firmware Version, Range, Speed, FSD, Zero, Filter, Serial No, Average, CAN, and USB. Below these are various checkboxes and buttons for configuration, including 'Update Firmware', 'Status Byte', 'Direct Mode', 'Average Enabled', 'Trend Enabled', 'Scale Mode', 'USB Connection', 'USB Type', 'Upload Configuration on USB connection', 'Trend Mask', and '16 Average'. On the right side, there are input fields for 'Maximum Weight', 'Minimum Weight', 'Total Drift', and a 'RESET' button. The main area displays 'RS232 Communication' set to 'COM1' and '9600', with checkboxes for 'Show Incoming' and 'Show Outgoing'. Below this, it says 'Opened COM1:9600'. At the bottom, there are two columns of buttons for 'RS232 Commands' and 'USB Commands', including options like 'Current Configuration', 'Set Scale Range', 'Zero Calibrate scale', 'Full Scale Calibration', 'Internal Calibrate', 'Start Scale', 'Stop Scale', 'Reset Scale', 'Command Help', 'Dump Configuration', 'Set Trend Mask', 'Set Serial Number', 'Set Filter value', 'Set Trend Enabled', 'Start Scale', 'Stop Scale', 'Reset Scale', 'Set Factory Defaults', 'Set CAN Address', 'Dump EEPROM', 'Clear EEPROM', 'Get Weight', 'Get Trend', 'Set Trend Mask', and 'USB Fetch Rate'. There are also buttons for 'TARE', 'Clear TARE', 'Tare Value', and 'Exit'.

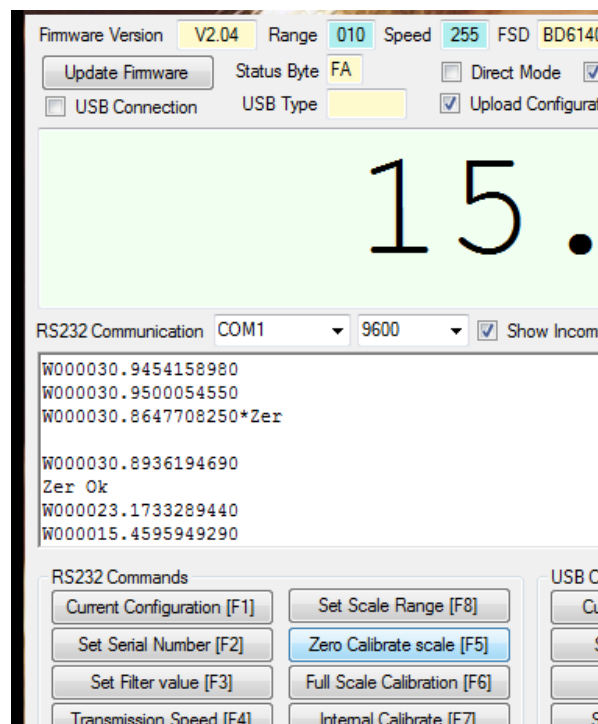
Click on the RS232 Communication drop down menu to select the scale comm. Port if other than Com1 as shown:

This close-up shows the 'RS232 Communication' drop-down menu. The menu is open, displaying a list of serial ports: COM1, COM2, COM3, COM4, COM5, COM6, COM7, and COM8. The 'COM1' option is currently selected. The background shows the same software interface as the previous screenshot, but the focus is on the port selection list.

Click on the Current Configuration (F1) button to get the scale Range, Speed, and other settings. Click the Start Scale (F10) button to start the scale transmitting, values of around 700.00 will normally be seen. Remove the Weigh Pan and place the Light Weigh Pan on the Scale as you would normally, a low value should be seen but is not always the case, see example below:



Click the Zero Calibrate Scale (F5), the Zer command is sent to the Scale, seen in the Data Window shown below, and the values should change to around zero after a few seconds.



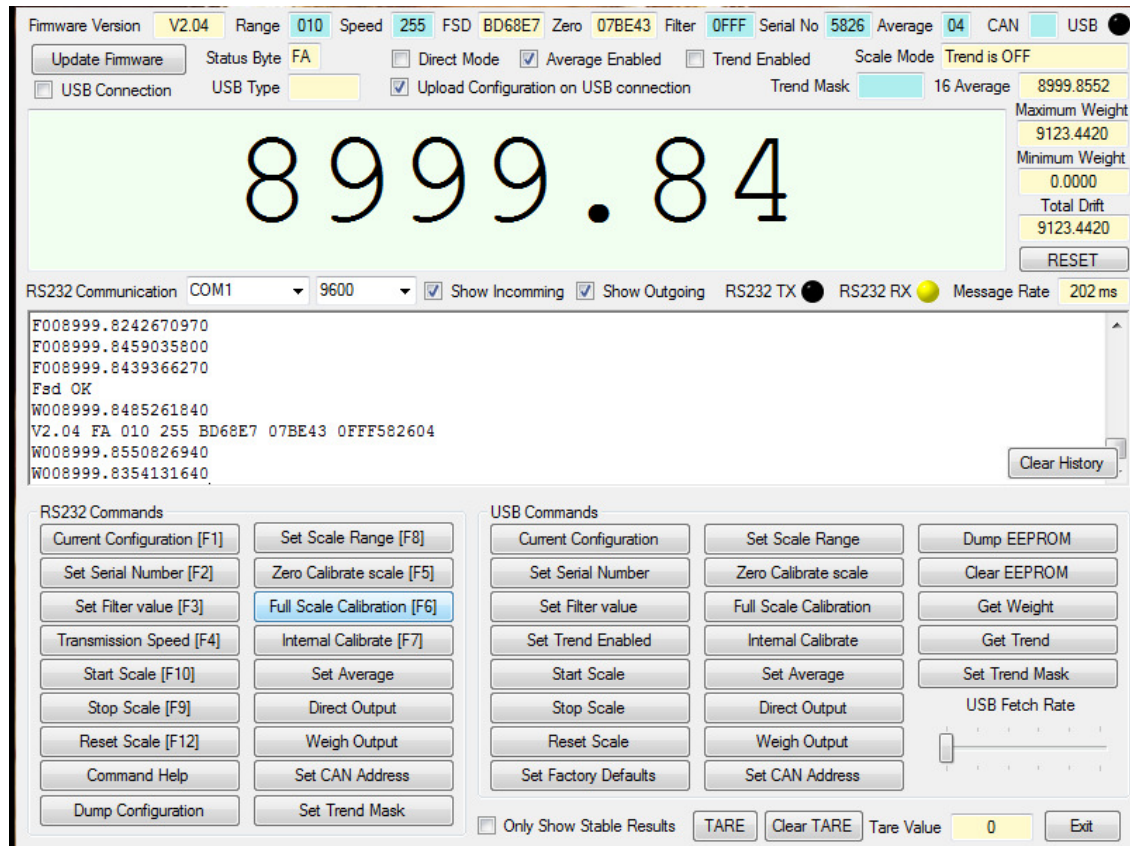
Next place 9Kg (for a 10Kg range Scale) of weights on the Scale, the readings displayed should be around 9Kg depending on how far out the scales were to begin with, as shown below:

The screenshot shows the main interface of a scale's software. At the top, various configuration parameters are listed: Firmware Version V2.04, Range 010, Speed 255, FSD BD6140, Zero 07BE43, Filter 0FFF, Serial No 5826, Average 04, CAN, and USB. Below these are buttons for 'Update Firmware', 'Status Byte FA', 'Direct Mode', 'Average Enabled', 'Trend Enabled', 'Scale Mode', and 'Trend is OFF'. A large central display shows the weight reading '8999.45'. To the right of the display, a sidebar shows 'Maximum Weight 9000.5979', 'Minimum Weight 0.0000', 'Total Drift 9000.5979', and a 'RESET' button. Below the main display, there's a section for 'RS232 Communication' with a dropdown for 'COM1', a baud rate of '9600', and checkboxes for 'Show Incoming' and 'Show Outgoing'. A list of data points is shown below this, starting with 'W008999.3338401490'. At the bottom, there are two columns of buttons for 'RS232 Commands' and 'USB Commands'. The 'Full Scale Calibration [F6]' button is highlighted in blue. Other buttons include 'Current Configuration [F1]', 'Set Scale Range [F8]', 'Zero Calibrate scale [F5]', 'Set Serial Number [F2]', 'Set Filter value [F3]', 'Full Scale Calibration [F6]', 'Transmission Speed [F4]', 'Internal Calibrate [F7]', 'Start Scale [F10]', 'Set Average', 'Stop Scale [F9]', 'Direct Output', 'Reset Scale [F12]', 'Weigh Output', 'Command Help', 'Set CAN Address', 'Dump Configuration', and 'Set Trend Mask'. At the very bottom, there are checkboxes for 'Only Show Stable Results', 'TARE', 'Clear TARE', 'Tare Value 0', and an 'Exit' button.

Click the Full Scale Calibration (F6) button, the display will change and start counting up from about 6000, this is normal and it may take a few seconds to several minutes to perform this part of the calibration, the FSD command can be seen in the Data window below:

This screenshot shows the same software interface as the previous one, but during a 'Running Calibrate' process. The top configuration parameters remain the same, but the 'Scale Mode' is now 'Running Calibrate'. The central display shows a new reading '6082.25'. The sidebar on the right shows 'Maximum Weight 8998.8599', 'Minimum Weight 8999.0309', 'Total Drift 8999.0309', and a 'RESET' button. The 'RS232 Communication' section is the same, but the data list now includes 'F007540.7050934960' and 'F006811.4572687460'. In the 'RS232 Commands' section, the 'Full Scale Calibration [F6]' button is still highlighted. The 'USB Commands' section is the same. At the bottom, the 'Only Show Stable Results' checkbox is now checked, and the 'Tare Value' is still '0'.

Completion of Calibration is notified in the Data window also, but due to the scrolling nature of the data it is difficult to see, when calibration is complete the Fsd OK message can be seen briefly as shown in the Data window below:



If the display appears to be stable and several minutes have passed, it is probable ok to stop the scale transmitting with the Stop Scale (F9) button, remove the Light Weigh Pan and replace the Weigh Pan. Test the Scale Accuracy using Show Scales in InkManager.

If in doubt, the Full Scale Calibration (F6) button can be clicked again and watch the Data window carefully for the Fsd OK message, after you have seen it, check the scale as described above.

It is important that no other buttons are clicked or setting change in this software, as undesirable operation may follow. The USB Weigh software is a powerful Test and Configuration tool that cannot be fully described in this guide, please follow the instruction without deviating from them.

If you have any problems with running the software or performing the calibration with this guide, please contact support@vale-tech.co.uk.