

# LabWedge

Version 6.0K  
6/2009



## LabWedge Manual 'LE1000-2'

### IMPORTANT NOTES:

PROWEDGE.CFG FILE: SAVE a copy of the original ProWedge.cfg file as ProWedge.cfg\_bak so you can easily recover / go back to an original working configuration if needed. This file is found in C:\

PASSWORD: The default password is... **www.prowedge.com**

CHANGING PASSWORD: You may change this password in the configuration options.

ENDING PROGRAM: Type **END** in the password field.

MOVING DISPLAY: You can position the display anywhere you like on the screen... simply hold Right mouse button and drag it to a new position.

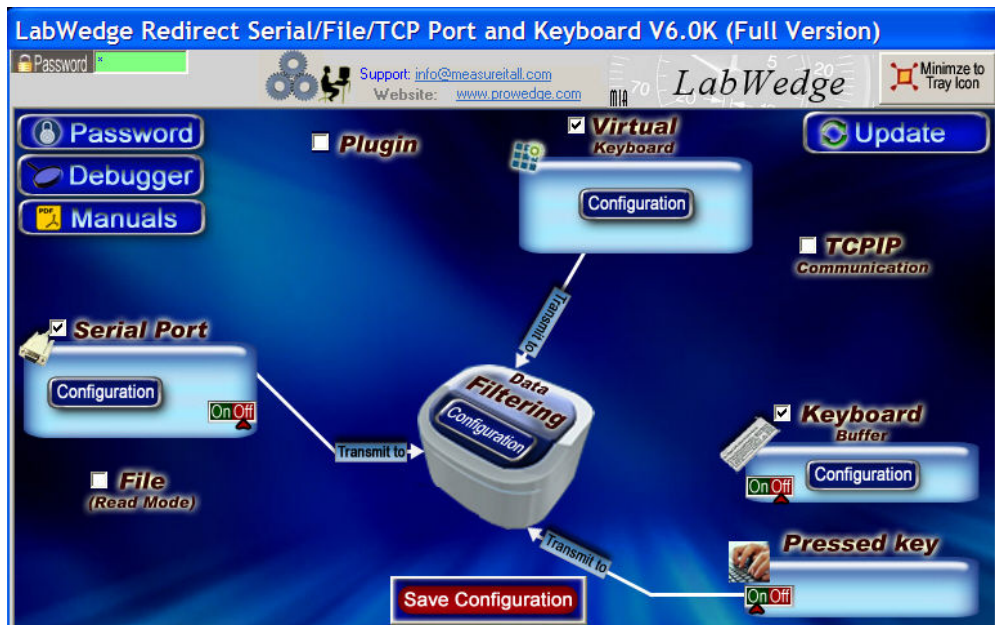
READ: Press F8, Button (image), or Start Button.

AUTOMATIC MODE: Set "Quantity" to 9999 for infinite number of readings.

For your convenience, we have **highlighted** some of the most relevant material in the manual.

SET-UP / START  
SCREEN:

Plug-in...	Unchecked
Virtual Keyboard...	Checked
TCPIP...	Unchecked
Keyboard Buffer...	Checked and 'OFF'
Pressed Key...	'ON'
File Read Mode...	Unchecked
Serial Port...	Checked and 'OFF'

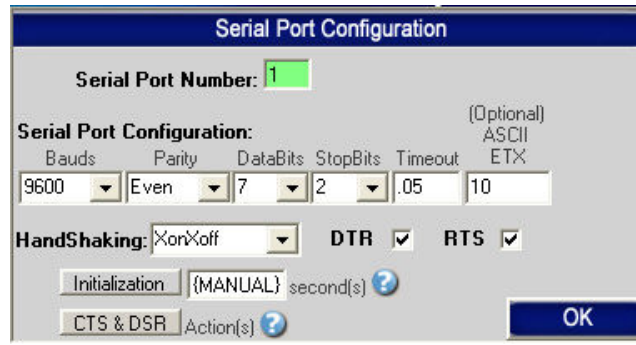


**Don't forget to push the Save Configuration button to save your current settings.**

**Supported Operating Systems:** Windows 98, Me, 2000, 3000, XP, NT4, Vista  
Single Computer License with each purchase.

Simply the best RS232 data capture & virtual keyboard software available !

## SERIAL PORT DESCRIPTION



Communicating through a Serial Port connection is very straightforward with the software. The software can send the data received by the Serial Port to the Keyboard buffer, TCP port, or a File, depending on which switch is set to ON.

The switch ON/OFF:

If position is ON, the data received by the peripherals: File, TCP, Keyboard and Virtual Keyboard are automatically redirect to this serial port.

If position is OFF, the data received by the peripherals are not sent to the serial port.

**The Serial Port number:**

Use this field to chose the serial port number (*where your peripheral is connected*). If the field is GREEN, it's because the COM is present and available.

\* To disable the serial port enter: 0

**The Serial Port Configuration:**

Use this section to set the baud rate, parity, data bit, stop bit, timeout (*in seconds*) and *ASCII ETX* parameters.

**Timeout:** The timeout feature is optional. It is used to received the packet in one shot.

\* Example if the timeout is 0.2 then the serial port waits 0.2 second to send the string in one shot.

**ASCII ETX:** The ETX (*end of text (Terminating) character*) feature is optional.

It is used if your string always ends with the same character.

\*ASCII characters from 0 to 255.

\*For example: If your string ends with an ENTER/CR:

Bauds	Parity	DataBits	StopBits	Timeout	ETX
9600	None	8	1	0	13

\*To receive data only if they are different, set timeout option to 999 example:

Bauds	Parity	DataBits	StopBits	Timeout	ETX
9600	None	8	1	999	13

- To receive the data only if they are different or if the **x** delay is exceed, set timeout option to **999.x** **Example of a 3 second timeout.**

Bauds	Parity	DataBits	StopBits	Timeout	ETX
9600	None	8	1	999.3	13

### Handshaking:

Use this field to choose the serial port hand shaking protocol configuration.

**None: No handshaking**

XonXoff: Software XON/XOFF handshaking

Rts: RTS/CTS (Request to send/ Clear to send) hardware handshaking

RtsXonXoff: Both request to send and XON/XOFF handshaking

### DTR/RTS:

You can activate or deactivate the hardware line:

DTR, Enable the data terminal ready line.

RTS, Enable the request to send line.

**Default is checked** for standard operation

### Initialization button:

If the file: "C:\ProWedge.CFG\init\_serial.txt" is present, then the contents of this file will be sent automatically:

- At startup.

- If you click on the button initialization.

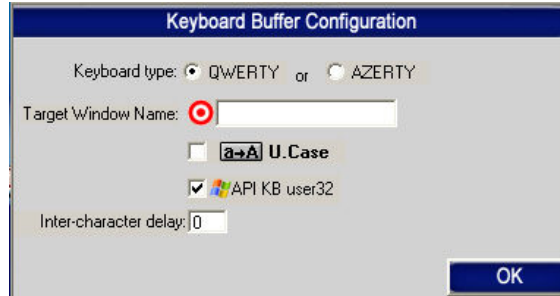
- **Default is {MANUAL}** for standard operation

### CTS & DSR button:

*With the input pins CTS and DSR of your serial port you can generate action in your computer.*

*Example: If you put a hardware switch between the pin 7 and 8 of your serial port DB9 and you enter {F8} in the configuration CTS (action push) field, then when you activate the hardware switch, an F8 key push is simulated in your computer.*

## KEYBOARD BUFFER CONFIGURATION



**You can send the Serial port, File, TCP port and/or the Virtual Keyboard to the keyboard buffer if you set the Keyboard Switch to ON.**

*\* See possible commands section*

The QWERTY option (**Default**):

Select this option if you use a QWERTY keyboard.

*\*If your keyboard is QWERTY you can see just across from the letter Q the letters WERTY*

The AZERTY option:

Select this option if you use a AZERTY keyboard.

*\*If your keyboard is AZERTY you can see just across from the letter A the letters ZERTY*

The Target Windows Name: **Leave Blank**

The U. Case option:

The software can switch all lower case characters automatically to upper case.

The API KB user 32 (**ON by default**):

If you activate this option, the data is sent directly to the Keyboard buffer, this method work's with all kinds of applications.

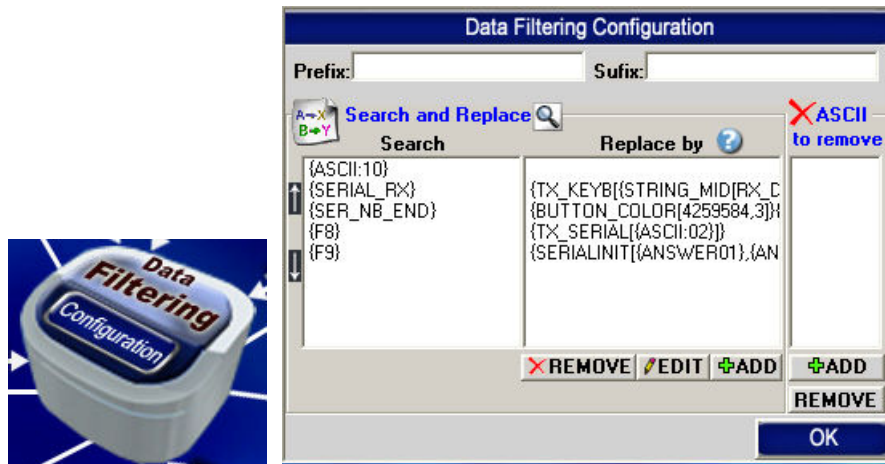
The delay option:

With this option you can change the output inter character delay.

**Default is 0** for standard operation.

*\*You likely don't need to change this option.*

## DATA FILTERING CONFIGURATION



All options in this section apply to: Serial port, File, TCP port, Keyboard and Virtual Keyboard

The Prefix/Suffix: **Leave blank**

When the software receives data from a peripheral, it adds the PREFIX at the beginning of data and the Suffix at the end.

[Prefix][data from a peripheral][Suffix]

The Prefix and the Suffix can contain any characters and or commands that you want.

The Remove ASCII section: **Leave as is**

With this section you can remove ASCII characters directly from the received data. With the ADD button you can add new ASCII characters from 0 to 255.

\*Example: To remove Enter, ADD: 13

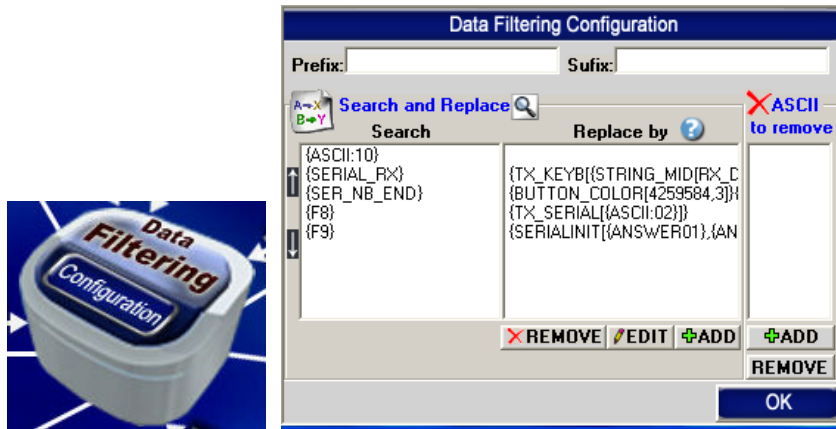
\*Example: To remove Line Feed, ADD: 10

The Search and Replace section (up and down arrows): **Leave as is**

Use the arrows up and down to change the order of the lines present in this section.

**NOTE: Be careful when Editing this section... Clicking on 'Cancel' will delete the entry during Editing. Clicking 'OK' will preserve/save the entry.**

## DATA FILTERING CONFIGURATION



The Search and Replace section:

With this section you can search and replace the string from the gauge. In the field “Search” enter the search string and in the “Replace by” enter the replacement string. The “Replace by” string can contain whatever you want:

### Default Data Filtering Set-up (for above gauge)

**Example / Explanation** You can Copy and Paste into the Data Filtering Configuration EDIT window as needed.

**Search...** Entry in Red

**Replace by...** Entry in Black

**Rule #1** {ASCII:10}

Note: Leaving Blank removes extra LF from gauge output string (if needed), (FYI, LF = {ASCII:10}).

**Rule #2** {SERIAL\_RX}

```
{TX_KEYB[STRING_MID[RX_DATA,2,9]} {TAB} {CURDATE:MM-DD-YYYY} {TAB} {CURTIME} {ASCII:13}; {TX_BUTTON_TXT[4,STRING_MID[RX_DATA,2,9]]}
```

↑  
Gets value: From the position 2, extract 9 characters from the gauge output string / sends characters to KB buffer.

↑  
Inserts TAB

↑  
Inserts Date

↑  
Inserts TAB

↑  
Inserts Time

↑  
Inserts CR

↑  
Inserts value into Green Button (#4). Gets value: From the position 2, extract 9 characters from the gauge output string / sends characters to Green Button (#4)

**Rule #3** {SER\_NB\_END}

```
{BUTTON_COLOR[4259584,3]} {BUTTON_COLOR[16777215,2]}
```

Changes Start/Stop button color in the Timed Readings box.

**Rule #4** {F8}

```
{TX_SERIAL[ASCII:02]}
```

Sends Call command {ASCII:02} to gauge. ({ASCII:02} = STX command)

Pressing F8 is for a Single Read... it sends the Call command to the gauge and the value (string) is returned.

**Rule #5** {F9}

```
{SERIALINIT[ANSWER01},{ANSWER02]} {BUTTON_COLOR[4259584,2]} {BUTTON_COLOR[16777215,3]}
```

Pressing F9 Starts Timed Readings.

**To Send data to a File...**

First create the file... FILE\_IN\_OUT.TXT on the C drive (C:\ FILE\_IN\_OUT.TXT)

→ To send value to File only (does not display on Green Button); replace **Rule #2** with this:

```
{SERIAL_RX}
{TX_FILE[C:\FILE_IN_OUT.TXT,{STRING_MID[ORI_DATA,2,9]}{ASCII:13}{ASCII:10}]}
```

→ To send value to File and display value on Green Button... no Date or Time recorded in File; replace **Rule #2** with this:

```
{SERIAL_RX}
{TX_KEYB[{STRING_MID[RX_DATA,2,9]}{TAB}{CURDATE:MM-DD-YYYY}{TAB}{CURTIME}{ASCII:13}]{TX_FILE[C:\FILE_IN_OUT.TXT,{STRING_MID[ORI_DATA,2,9]}{ASCII:13}{ASCII:10}]{TX_BUTTON_TXT[4,{STRING_MID[RX_DATA,2,9}]}
```

→ To send value to File, and display value on Green Button, and record Date and Time in File; replace **Rule #2** with this:

```
{SERIAL_RX}
{TX_KEYB[{STRING_MID[RX_DATA,2,9]}{TAB}{CURDATE:MM-DD-YYYY}{TAB}{CURTIME}{ASCII:13}]{TX_FILE[C:\FILE_IN_OUT.TXT,{STRING_MID[ORI_DATA,2,9]}{ASCII:9}{CURDATE:MM-DD-YYYY}{ASCII:9}{CURTIME}{ASCII:13}{ASCII:10}]{TX_BUTTON_TXT[4,{STRING_MID[RX_DATA,2,9}]}
```

- Note: Virtual Keyboard... Checked
- Keyboard Buffer... Checked and 'OFF'
- Pressed Key... 'ON'
- Serial Port... Checked and 'OFF'

**Misc. Filtering Information**

TIP 1: To receive/display the ENTIRE string (including CR, LF) make the following change.  
Example; in the above Default Filtering Set-up, replace this rule...

```
Rule #2 {SERIAL_RX}
{TX_KEYB[{STRING_MID[RX_DATA,2,9]}{TAB}{CURDATE:MM-DD-YYYY}{TAB}{CURTIME}{ASCII:13}]{TX_BUTTON_TXT[4,{STRING_MID[RX_DATA,2,9}]}
```

with this one...

```
{SERIAL_RX}
{TX_KEYB[RX_DATA]} {TX_BUTTON_TXT[0,RX_DATA]}
```

**TIP 2:** To Add the sign "+ or -" to the number displayed... In **Rule #2** (pg.7), change the DATA,2,9 to DATA,1,9 (2 locations)

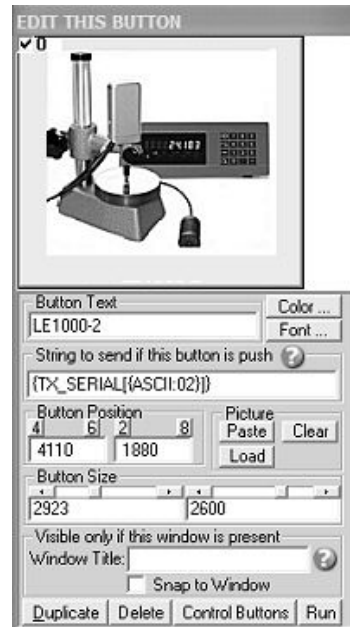
**TIP 3:** To Add an extra place to the number displayed... In **Rule #2** (pg.7), change the DATA,2,9 to DATA,2,10 (2 locations)

**Search and Replace Examples:**

**Example 1:** On all data received: From the position 2, extract 5 characters


Search	Replace by
{ALL_RX}	{STRING_MID[RX_DATA,2,5]}

## VIRTUAL KEYBOARD (All Buttons control)



Click on Button to open  
this window

Used to make and locate/place Buttons: **Leave as is**

Buttons list: Just under “Buttons” you can see the existing button list.

View all: Use this option to view all **Buttons list** on the screen.

Hide all: Use this option to hide all **Buttons list** on the screen.

Run: Use this option to try/run the Virtual Keyboard buttons.

Buttons Positions: Use this section to change the position of the selected button in the **Buttons list**. \* Use the vertical scroll bars to change the moving speed.

Add: Use this option to add a new Virtual Keyboard Button.

Del: Use this option to delete the selected/checked buttons in the Buttons list. **Be very careful that the ONLY button checked is the button you want to delete. If other buttons are checked, they will also be deleted.**

View Config: Use this option to show or hide the configurations of the selected button in the **Buttons list**.

View Number: Use this option to show or hide the number of the selected button in the **Buttons list**.

Import: Use this option to import a virtual keyboard.

Export: Use this option to export the selected button(s) in the **Buttons list** to a FILE.

Color: Use this option to change the Color of the selected button in the **Buttons list**.

Font: Use this option to change the Font of the selected button in the **Buttons list**.

Save cfg: Use this option to save the current configuration.

Button Text: Use this field to set what you want to see on the button.

String to send if this button is pushed:

Use this field to set the string to send if the user pushes this button. The string is sent to the Serial port, TCP port, File and/or to the Keyboard buffer depending what switch is set to ON.

*\* The string is only send in **RUN** mode.*

The string can contain: *\*See possible commands section*

Button Position:

Use this section to change the position of the button.

*\* Tips: Activate the NumLock Click the button and use the number 4,6,2 and 8 to change the position.*

Button Size:

Use this section to change the size of the button.

Duplicate:

Use this option to duplicate this button.

Color:

Use this option to change the button's background color.

Font:

Use this option to change the button's text font.

Picture:

Use this section to:

Paste a picture from the Clipboard to the button.

Clear a picture button.

Load a picture button.

Run:

Use this option to try the Virtual Keyboard buttons.

## Custom Software Development

With over 15 years of experience in successfully providing Custom Software Development solutions for over 300 customers, we have honed our processes and skills to cater to your specific business needs.

To request a feature, a Customized option or any kind of Software:

Contact by email: <mailto:info@prowedge.com>