



BF ENTRON LTD.

Monitoring equipment

WA Terminal

For use with Weld Analyser WA2 & Datapak 700/700S

MONITORING EQUIPMENT

WA Terminal

© BF ENTRON Ltd.
Building 80 • The Pensnett Estate
Kingswinford • West Midlands • DY6 7FQ
Phone +44 (0)1384 455401 • Fax +44 (0)1384 455551
www.bfentron.co.uk

Issue	Date	Comment
1	02-11-12	Initial release
2	09-01-13	Amended
3	11-11-13	USB features
4	03-04-14	Amended
5	13-05-14	Time/date feature
6	27-07-16	Added Datapak 700/700S features

Table of Contents

Introduction	1
Key features	2
Specifications	3
Getting started.....	4
Connecting your Weld Analyser.....	5
USB port	5
Connecting your Datapak 700/700S	7
Using WA Terminal	8
User interface.....	9
Communications Port.....	10
Device	10
Record Start/Stop	10
Save.....	10
Auto-save.....	11
Data display	11
Further information.....	12
Closing WA Terminal	12
Removing WA Terminal	12
Data persistence	12

Introduction

An overview of WA Terminal

The WA Terminal utility is a Microsoft Windows compatible program that allows you to capture the data from your WA2 Weld Analyser, Datapak 700 or Datapak 700S in applications where long-term data logging is required.

WA Terminal connects to your device via your computer's USB port. As your device records each weld the information is transmitted to WA Terminal where the information can be inspected, saved or printed. The program has minimal setup requirements and virtually unlimited storage capacity.

INTRODUCTION

Key features

- Microsoft Windows compatible
- Minimal installation
- Minimal set-up requirements
- Minimal performance overhead
- Virtually unlimited storage capacity
- Data is recorded in real time
- Data can be saved automatically

INTRODUCTION

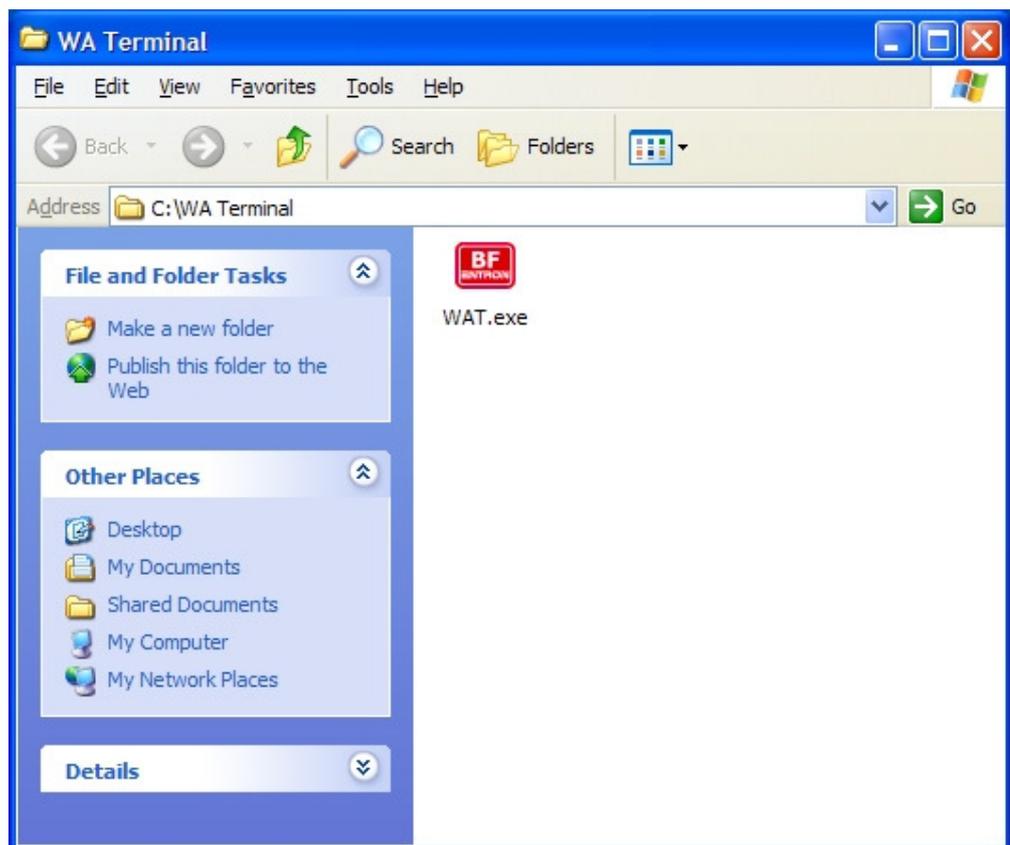
Specifications

compatibility	Microsoft Windows: 10/8/7/Vista/XP Server 2008
minimum requirements	Pentium 233-megahertz (MHz) processor or faster (300 MHz is recommended) At least 64 megabytes (MB) of RAM (128 MB is recommended) At least 1.5 gigabytes (GB) of available space on the hard disk Keyboard and a compatible pointing device Video adapter and monitor with Super VGA (800 x 600) or higher resolution USB 2.0 port and USB A to USB mini B cable (WA2) RS-232 COM port or a USB to serial converter (Datapak 700/700S)
user interface	conforms to user's display and scheme settings resizable main window with persistent settings horizontally and vertically scrollable data display Start/Stop recording function Start/Stop recording indicator Save data function Auto-save data function
communication ports	COM1 to COM16

Getting started

Installing WA Terminal

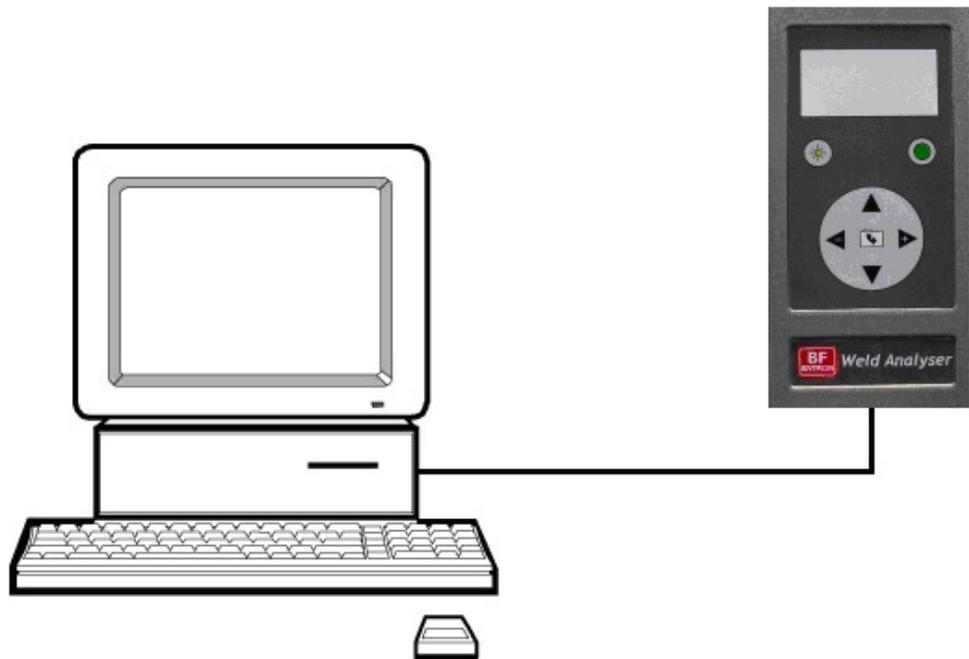
The WA Terminal utility is a self-contained program and requires no installation. The program is supplied as a single executable file named WAT.exe and is included on the WA2 companion CD. Copy the WAT.exe file to a location on your computer and run the program from there.



GETTING STARTED

Connecting your Weld Analyser

Connect your Weld Analyser as shown below:



The connections are as follows:

USB port

Connect your WA2 to a computer USB 2.0 port using a USB A to USB mini B cable if required.



The USB device is provided by Future Technology Devices International Ltd. and Windows drivers are included on the WA2 companion CD. Updated drivers and drivers for Mac OS and Linux can be found on the FTDI website: <http://www.ftdichip.com/Drivers/VCP.htm>. Check for updated drivers and install the driver for your system by following the appropriate installation guide: <http://www.ftdichip.com/Support/Documents/InstallGuides.htm>

The USB driver will allocate a COM port number to be used for the connection. The COM port number can be determined via Windows Device Manager as follows:

GETTING STARTED

Windows 10/8

- type: **device manager**, select Device Manager and then press enter

Windows 7/Vista

- Select the Start Orb.
- In the Start Search box type: **device manager** and then press enter.

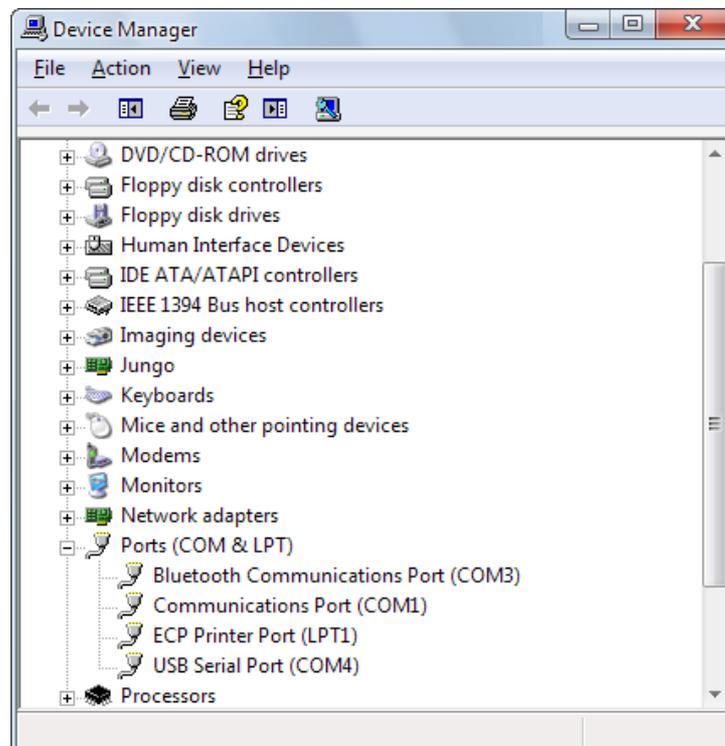
Windows Server

- Open the Administrative Tools in Control Panel.
- Within the Administrative Tools select Computer Management.

Windows XP/2000

- Right-click on My Computer and select Properties or open the Control Panel and select the System applet.
- In the System Properties window select the Hardware tab.
- In the Hardware tab select the Device Manager button.

A typical example is shown below:

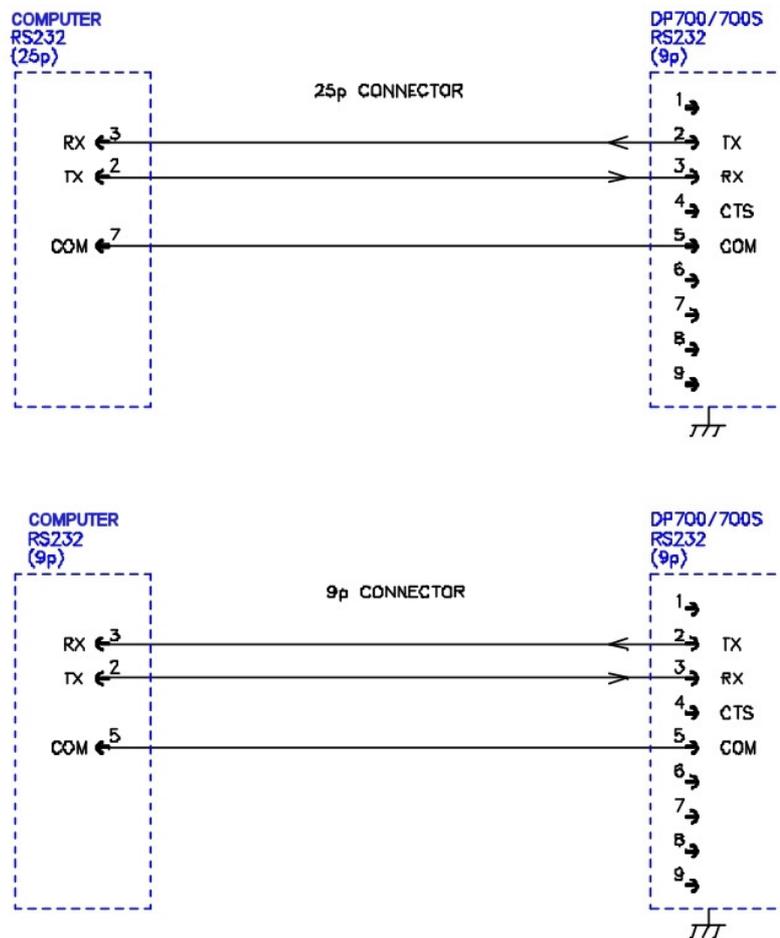


GETTING STARTED

Expand the Ports node and determine which COM port has been allocated to the USB port (in this example the connection has been allocated to COM4). You will need to select this COM port when you use WA Terminal.

Connecting your Datapak 700/700S

Your Datapak should be connected to your computer via an RS-232 COM port or a USB port using a suitable converter. If you are using a COM port connect your Datapak 700/700S as shown below:



If you are using a USB converter, consult the manufacturer's documentation.

Using WA Terminal

Using WA Terminal with your device

Note: The WA2's Print parameter determines the data that is transmitted to WA Terminal at the end of each weld. If printing is off, no data is transmitted; if printing is set to All, the WA2 transmits the results of every $\frac{1}{2}$ cycle (AC) or 10 ms (DC) reading; if printing is set to Summary, the WA2 transmits the average current and duration for the weld.

The Print parameter can be accessed via the Setup screen on your Weld Analyser.

Note: The Datapak 700/700S's Printer Setup parameters determine the data that is transmitted to WA Terminal.

The Print Setup parameters can be accessed via the Configuration menu.

USING WA TERMINAL

Start the WA Terminal utility.

User interface

The user interface is described below:

The screenshot shows the WA Terminal application window. It features a 'Communications' section with a 'Port' dropdown set to 'COM1' and a 'Device' dropdown set to 'Weld analyser'. Below this is a 'Record' section containing a 'Stop' button, a 'Save...' button, and an 'Auto-save' checkbox. The main area displays a table of recorded data from a BF ENTRON Weld Analyser v4.2. The table has five columns: 'Weld Pulse', 'Cycle', 'Current (kA)', 'Conduction (degrees)', and a timestamp. The data shows 16 rows of pulse cycle measurements. The 'Auto-save' checkbox is checked. Callouts point to the 'Port' and 'Device' dropdowns, the 'Auto-save' checkbox, the 'Save...' button, the 'Stop' button, the data table, and the timestamp.

Communications port and device being used.

Check this box to automatically save the recorded data whenever it is updated.

Use this button to Save the recorded data to a text file.

Use this button to Start recording from your device. Use the button again to Stop recording.

Example data recorded from a WA2.

Time and date of record (requires WA2 v4.2+)

BF ENTRON Weld Analyser v4.2				
Weld Pulse	Cycle	Current (kA)	Conduction (degrees)	
2	1	1+	3.56	87
2	1	1-	3.62+	98
2	1	2+	3.02	84
2	1	2-	2.96	84
2	1	3+	2.96	84
2	1	3-	2.96	84
2	1	4+	2.98	84
2	1	4-	2.98	84
2	1	5+	2.96	84
2	1	5-	2.95-	84
2	1	6+	2.98	84
2	1	6-	2.97	84
2	1	7+	2.97	84
2	1	7-	2.96	84
2	1	8+	2.99	88
2	1	8-	2.99	84

USING WA TERMINAL

Communications Port

Port

Your device should be connected to your computer via an RS-232 COM port or a USB port using a suitable converter. Use this function to select the appropriate COM port that will be used for communications. WA Terminal will reprogram the port with the appropriate settings.

Device

Device

The device you are using with WA Terminal.

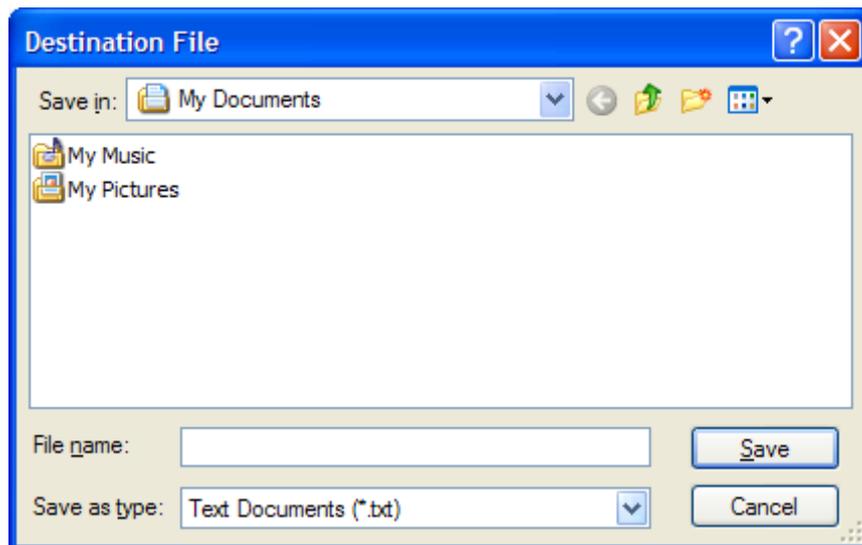
Record Start/Stop



Use this button to start recording from your device. The indicator will activate and WA Terminal will start capturing data via the COM port. Use the button again to Stop recording data.

Save

Use this button to save the recorded data to a disk file. A File Save dialog is displayed:



Choose a location and a filename and the recorded data will be saved as a plain text file.

USING WA TERMINAL

Auto-save

Auto-save

Use this function to automatically save the recorded data each time it is updated. The data is saved to the file selected via the Save button. If no file has been selected, the Auto-save function is disabled.

Data display

```
BF ENTRON Weld Analyser v4.2
Weld Pulse Cycle Current Conduction
                        (kA)    (degrees)
  2    1    1+    3.56    87
  2    1    1-    3.62+   98
  2    1    2+    3.02    84
  2    1    2-    2.96    84
  2    1    3+    2.96    84
  2    1    3-    2.96    84
  2    1    4+    2.98    84
  2    1    4-    2.98    84
  2    1    5+    2.96    84
  2    1    5-    2.95-   84
  2    1    6+    2.98    84
  2    1    6-    2.97    84
  2    1    7+    2.97    84
  2    1    7-    2.96    84
  2    1    8+    2.99    88
  2    1    8-    2.99    84    17:14:26 12.02.14
```

The data display shows the data that has been recorded from your device. The format is determined by the Print parameter of your device. The time and date feature requires WA2 v4.2+

Further information

Additional information about WA Terminal

This section contains additional information about WA Terminal.

Closing WA Terminal

The program can be closed at any time using any of the standard Windows actions. Recorded data that has not been saved will be discarded.

Removing WA Terminal

The program can be removed from your computer by deleting the WAT.exe file. There are no other files.

Data persistence

Warning: editing the Registry incorrectly can cause serious system-wide problems that may require you to re-install Windows to correct them. Changes made to the Windows registry have immediate effect, and no backup is automatically made. Do not edit the Windows registry unless you are confident about doing so.

The size and position of WA Terminal's main window, together with the last used COM port is stored in the system registry. The registry key is HKEY_CURRENT_USER\Software\BF ENTRON WA Terminal