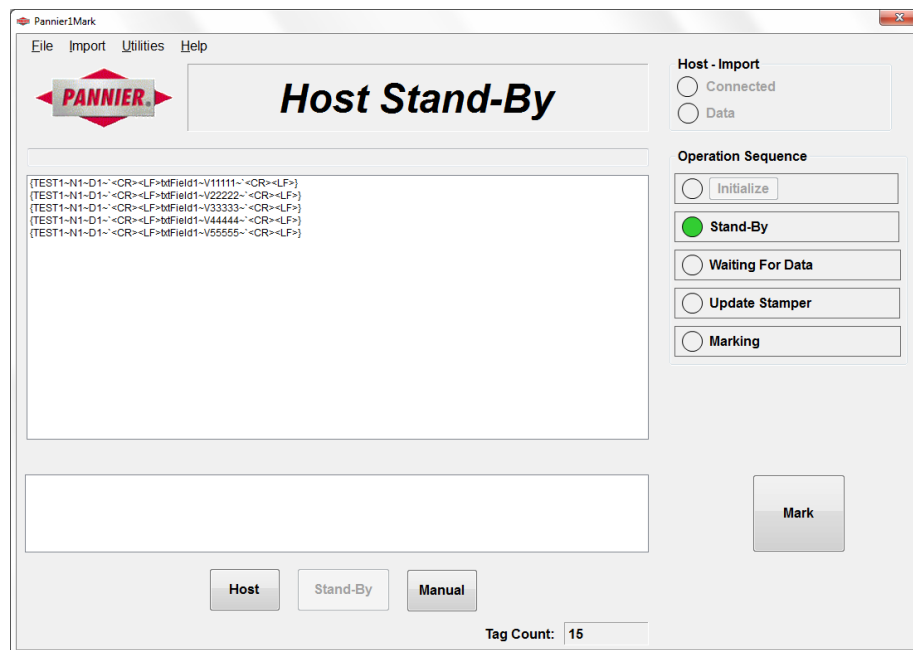




Pannier 1Mark™ Software

Pannier 1Mark is a software application that enhances the functionality of Pannier dot peen marking systems by streamlining data transfer from one or more sources to the AC500 controller. 1Mark does this by providing an easy-to-use graphical user interface between a Windows PC and the AC500 Controller. Data streams sent to 1Mark will be formatted according to the Pannier Universal Data Stream (UDS) protocol, a simple data protocol used with all Pannier dot peen and tag marking machines.

The hardware interface between the PC and AC500 Controller can be either a DB9 Male to Female cable (utilizing pins 2, 3, 5 - where pins 2 and 3 are swapped) or a USB to RS-232 adapter. Both cables are included with the software.



COMMUNICATING WITH 1MARK

Pannier 1Mark can be configured to accept data from a host computer using one of the following methods:

TCP/IP (Socket Connection)

The customer's host application makes a Windows socket connection to Pannier 1Mark.

The host application connects to 1Mark using the IP address of the LAN card in the PC running 1Mark, and the port number specified in the 1Mark Config.txt file. Once the connection is made, the host application sends data streams following the Pannier UDS protocol. 1Mark continuously captures the host data streams and appends them to the queue. The operator then clicks the Host button to begin marking streams from the queue, one at a time.

TCP/IP (Network Printer)

1Mark acts as a Windows network printer on a network.

To accomplish this, a standard TCP/IP Port is added to the network using the IP address of the LAN card in the PC running 1Mark, and the port number specified in the 1Mark Config.txt file (go to *Devices and Printers > Add a Printer >*



Add a Local Printer > Create New Port > Standard TCP/IP Port). The Generic/Text Only Print Driver is selected. The protocol is RAW. Do not use headers, footers, or margins. Once the printer is set up, the host application prints data streams following the Pannier UDS protocol. 1Mark continuously captures the host data streams and appends them to the queue. The operator then clicks the Host button to begin marking data streams from the queue, one at a time.

Universal Data Stream (UDS) File Transfer

1Mark is configured to watch for *.uds files in a specified folder location.

This method requires the customer to network the PC running 1Mark and create a shared folder either locally or on the network. The *.uds files contain one or more data streams in the Pannier UDS protocol. When 1Mark finds one or more *.uds files in the specified folder, it will open the files one by one, oldest first, read the UDS records from each file appending them to the queue and moving the files to the File Destination folder as processed. The operator then clicks the Host button to begin marking tags from the queue, one at a time.

Comma Separated Value (CSV) File Transfer

1Mark is configured to watch for *.csv files in a specified folder location.

This method requires the customer to network the PC running 1Mark and create a shared folder either locally or on the network. The *.csv file format contains two header records. The first record contains the name the Tag Format. The second record lists the objects (data fields), comma separated, to be marked on the tag. The remaining record(s) contain the data for each object, comma separated. When 1Mark finds one or more *.csv files in the specified folder, it will open the files one by one, oldest first, read the CSV records from each file appending them to the queue and moving the files to the File Destination folder as processed. The operator then clicks the Host button to begin marking tags from the queue, one at a time.

Manual File Import

The operator manually imports data files.

When 1Mark is configured for import, the operator pulls down the Import menu while in Host Stand-By mode, selects UDS File or CSV File, then browses to the file to be imported. The data within the selected file will be loaded into the queue. The operator then clicks the Host button to begin marking tags from the queue, one at a time.

RS-232 Serial

1Mark receives data streams from a host system through a cabled serial connection.

The host application sends data streams following the Pannier UDS protocol. 1Mark continuously captures the data streams and appends them to the queue. The operator then clicks the Host button to begin marking streams from the queue, one at a time.

Manual Data Entry

The operator enters data into a data entry screen in 1Mark.

Pannier 1Mark includes a feature called the Dynamic Manual Interface (DMI). The DMI enables the user to quickly create a Manual Data Entry form for a specific marking format that has been created on the dot peen system. When the Manual Data Entry mode is selected, 1Mark displays a list of the available Manual Data Entry forms for easy selection. After a form is selected, a list of field prompts is displayed for quick manual data entry.

1 MARK DATA VALIDATION FEATURES

Whether the data to be marked is supplied by a host system or manually entered, Pannier 1Mark provides the following data validation features (except as noted):

- **Required Fields** – If a field is specified as required, Pannier 1Mark will not allow marking unless the data for field is provided (applies only to manually entered data).
- **Field Validation** – Fields to be marked can be validated using 1 or 2 and 3 or 4 listed below:
 1. **MinChars** and **MaxChars** – Specifies valid number of characters entered.
 2. **MinValue** and **MaxValue** – Specifies valid range of the number entered.
 3. **Restrictions** – Can be specified as illustrated below:
 - Specify by single characters: 2468 (disallow 2, 4, 6, 8, or 2468)
 - Specify by range: {a-z} (disallow lower case letters)
 - Specify by range: {A-Z} (disallow upper case letters)
 - Specify by range: {0-9} (disallow numbers)
 - Specify a combination: {a-z},{A-Z},2468
 4. **List** – Specify a list of acceptable entries, separated by commas.
 - 1,2,3,4,5
 - A,B,C,D,E
 - ONE,TWO,THREE,FOUR,FIVE
 - RED,GREEN,BLUE,YELLOW
 - 100,200,300,400,500
- **Increment/Decrement** – Automatically increments or decrements the field by the specified number (typically one) after each mark.
- **Padding** – Automatically adds the specified character (typically a zero or space) to the left or right (L or R) of the entered field in order to obtain the specified “Total Padded Field Size”.
- **Parenting** – Creates a resulting field from one or more fields or strings concatenated together.