SIMPLiCITY™

Scan2Run™ Workflow Module

P/N 463201-01
Revision AB, March 2023

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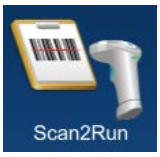
Table of Contents

Section 1 Installation of Scan2Run Workflow Module

1.1 Introduction



The Scan2Run Workflow Module enables the user to select a job and provide variable job data using a handheld barcode scanner connected to the printer.

The barcode scanner can be connected to printer through USB or RS232 serial connection.

For more information contact Videojet customer service or your local distributor. Alternatively refer to the VideojetConnect™ Workflow Portal for information.

1.2 Installing Workflow Module

The Software Download tool allows the user to install, uninstall and update Workflow Module.

To install the Workflow Module, follow the steps below:

1. Turn on the printer. The printer will start up and on completion, Home screen will be displayed. The printer will be in SHUTDOWN mode as shown in Figure 1-1.

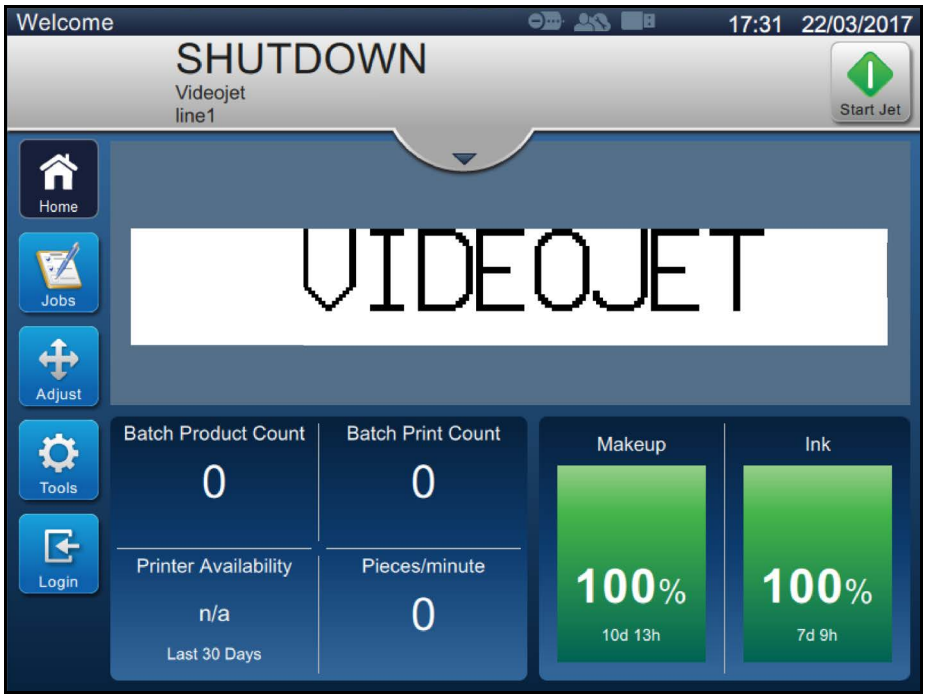


Figure 1-1: Home Screen

2. Touch the *Login* button and set the role to Admin user level. Enter the required password (default = 3333) to login to the system (Figure 1-2).

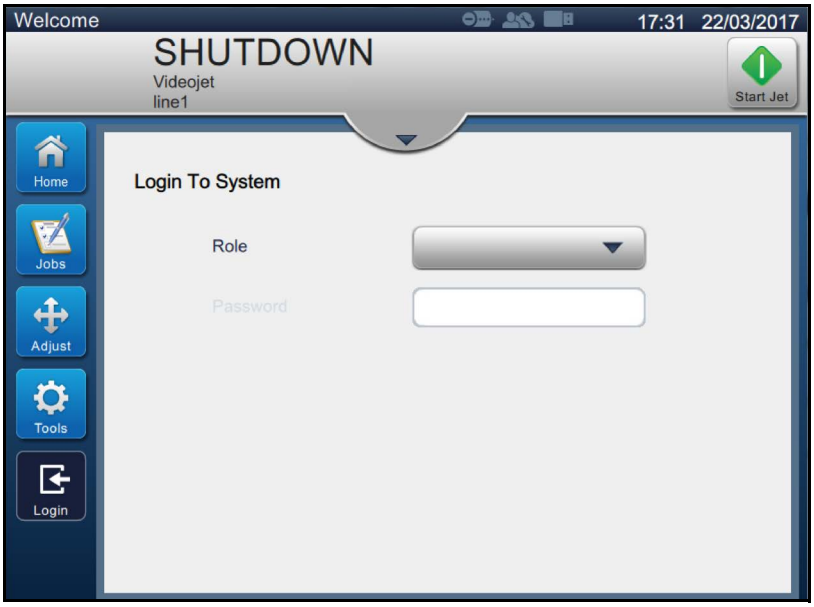


Figure 1-2: Login Screen

3. Navigate to *Tools* > *Software Download* > *Install Workflow Module(s)* as shown in Figure 1-3.

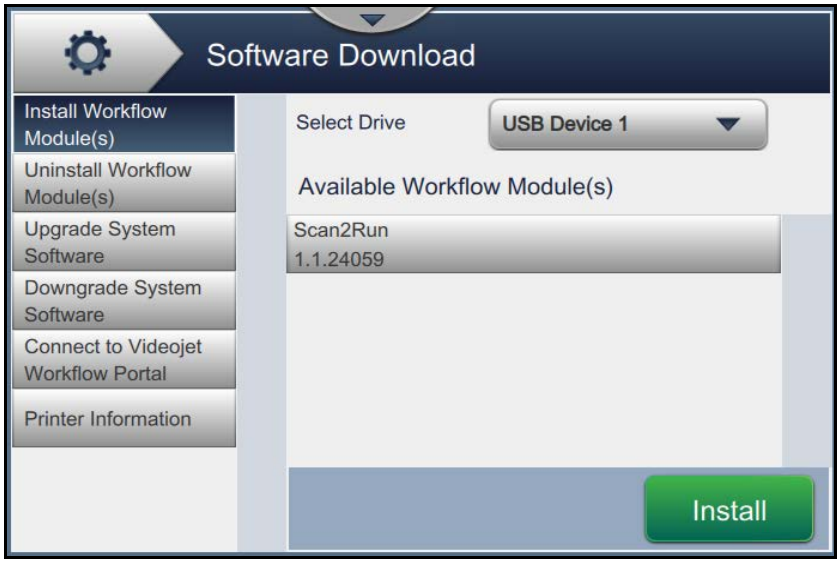


Figure 1-3: Software Download

4. Select the required drive from the drop down list.
5. Touch the *Install* button to start the installation procedure.

The installation of Scan2Run Workflow Module to the printer is complete. The printer will now restart.

***Note**: After the restart, the printer will display a maintenance alert that the installation of Scan2Run Workflow Module was successful.*

Section 2 Scan2Run Setup

2.1 Spare Parts

The parts below are required for each application and are ordered separately.

Part Number	Part Description	Quantity
RS232 Kit		
MS0965-17	Barcode Scanner Kit	1
MS1371	Cable Adapter	1
611197	RS232 Cabinet Connector	1
USB Kit		
MS0965-USB	Barcode Scanner Kit	1

Table 2-1: Parts List

2.2 RS232/USB Setup Procedure

For RS232 Setup:

1. Navigate to *Tools* > *Scan2Run* and select the checkbox to enable the Scan2Run Workflow Module as shown in the Figure 2-1.

   Note: *Ensure that the barcode scanner is connected to the printer through RS232 connector.*

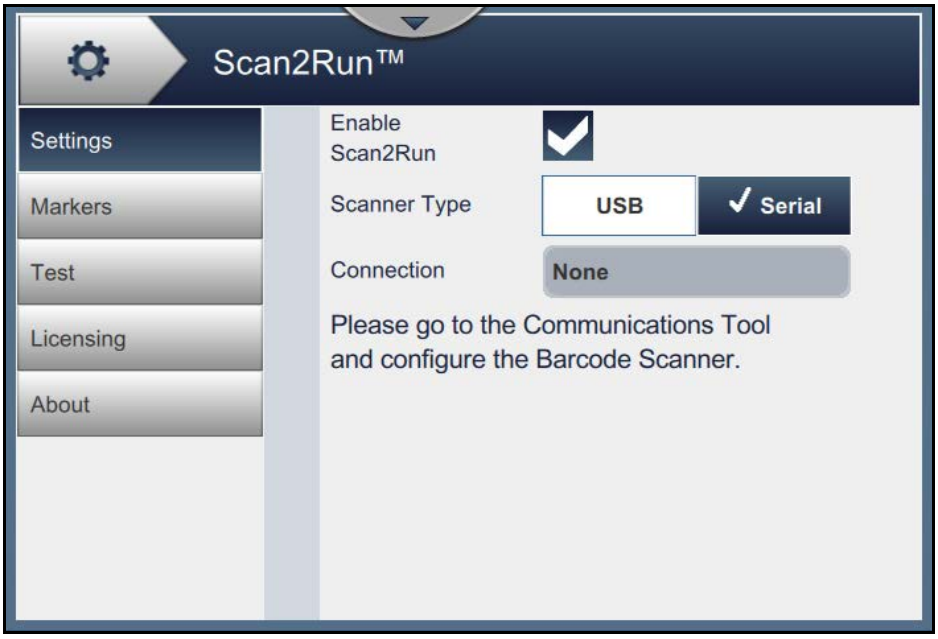


Figure 2-1: Scan2Run Screen - Serial

2. Set the scanner type to *Serial* for RS232 connection.

3. Navigate to *Tools* > *Communications* > *COM5* and set the protocol to *Scan2Run* from the drop down list as shown in the Figure 2-2.

   Note: *Make sure that the RS232 connection settings are correct.*

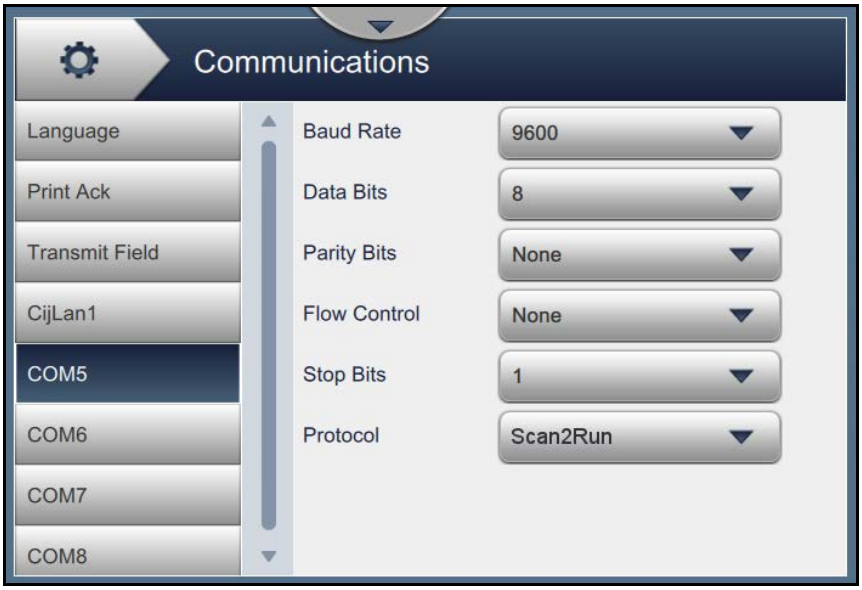


Figure 2-2: Communications Screen

4. Navigate to *Tools* > *Scan2Run* > *Settings* and confirm the connection is set to COM5.

For USB Setup:

1. Navigate to *Tools* > *Scan2Run* and touch the checkbox to enable the Scan2Run Workflow Module as shown in the Figure 2-3.

   Note: *Ensure that the barcode scanner is connected to the printer through USB connector.*

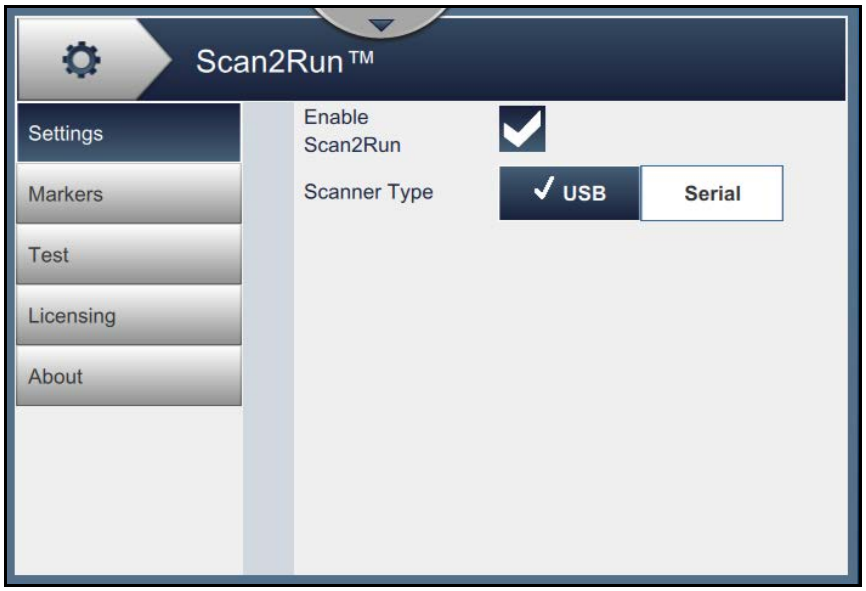


Figure 2-3: Scan2Run Screen - USB

2. Set the scanner type to *USB* as shown in the Figure 2-3.

2.3 Markers Setup

Navigate to *Tools* > *Scan2Run* > *Markers* to set the leading characters of barcode as shown in the Figure 2-4.

Note: *The leading characters are the identifiers of the data found in the barcode. If these are all empty, the Scan2Run will read the barcode and will use the data read as the name of the job to select from memory.*

Note: *Letters or symbols can be used in the marker fields. These characters will be read and removed so they will not print in the output.*

Note: *The job and the data markers allows the user to use same scanner for both job selection and user field data update purposes.*

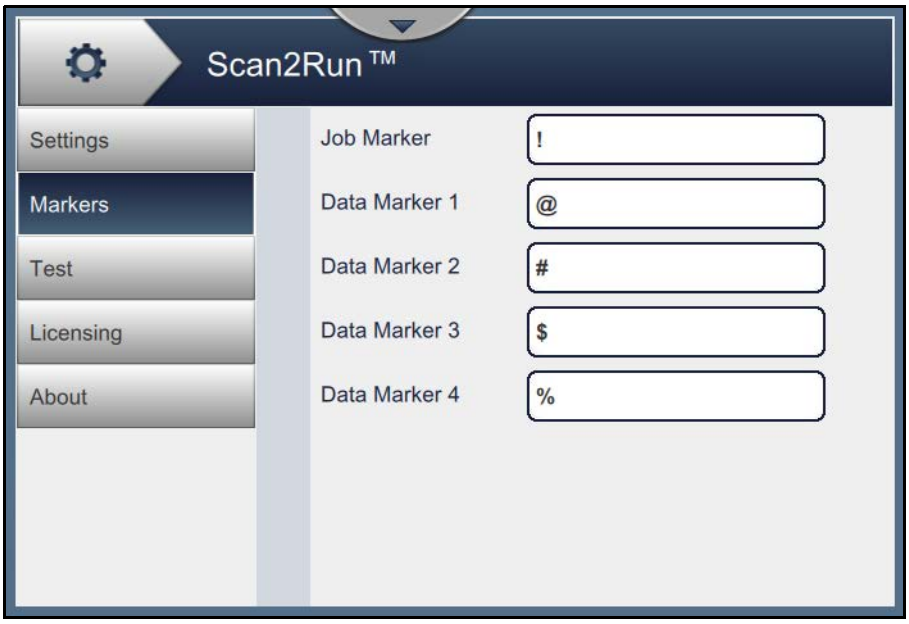


Figure 2-4: Scan2Run Screen - Markers

The Markers screen provides the access to the following options as shown in Table 2-2.

Option	Description
Job Marker	The job marker is a unique identifier which can be included at the beginning of the each string of the scanned barcode data. The identifier enables the printer to detect the data as a job name from printer's memory. The printer will perform job selection functions if the scanned barcode data is a job name.
Data Marker 1 Data Marker 2 Data Marker 3 Data Marker 4	The data marker is a unique identifier which can be included at the beginning of the each string of the scanned barcode data. The identifier enables the printer to detect the data as a user field data. The printer will dynamically update the field(s) of the current job if the scanned barcode data is a user field data. For example, the symbol "@" will identify the data from the barcode scanner at the beginning of data read. This data will be placed into the user field. ***Note:*** *Data markers correlate to user prompted fields in the order in which the prompted fields were added to the message.*

Table 2-2: Markers

2.4 Test Setup

2.4.1 Create a New Job for Testing

1. Touch the *Jobs* button and the job list screen opens as shown in the Figure 2-5.

Figure 2-5: Job List Screen

2. Touch the *+New* button to create a new job. The Job Settings screen opens as shown in Figure 2-6.

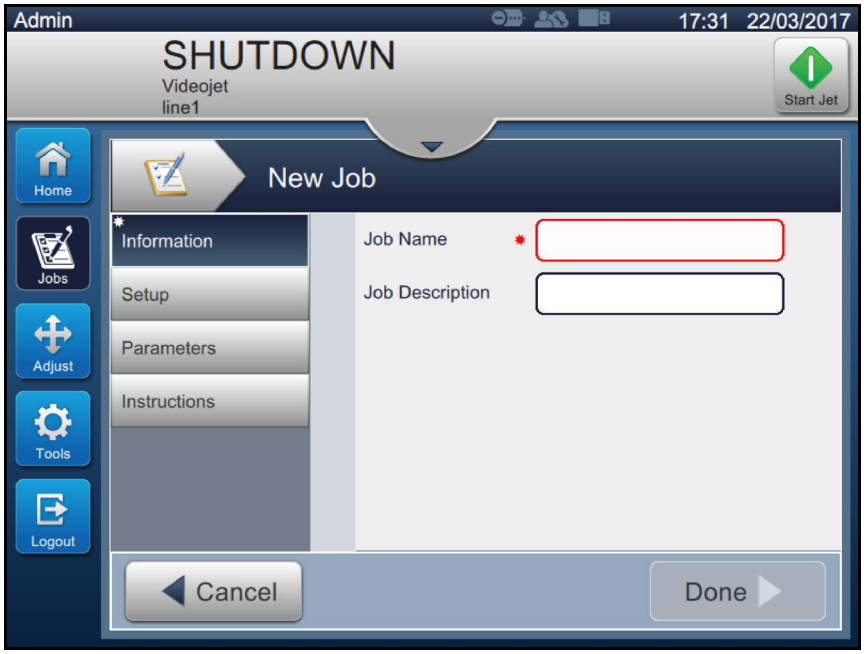


Figure 2-6: Information Screen

3. Touch the Job Name text box to enter the job name for the new job. The Job Name screen opens.

   Note: *The user can also provide the job description for the new job.*

4. Enter VIDEOJET using utility keypad and touch the *Accept* button.
5. Touch the *Done* button on the Job Settings screen.

   Note: *The user can also change the setup, parameters and instructions details.*

6. Job Editor screen opens as shown in Figure 2-7.

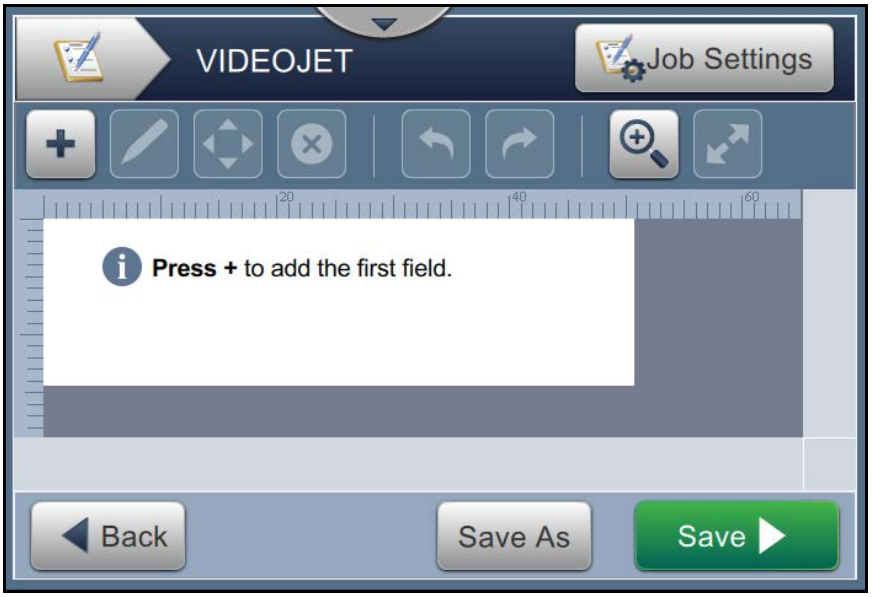


Figure 2-7: Job Editor Screen

7. Touch the + button and select text as shown in Figure 2-8. Touch the *OK* button.

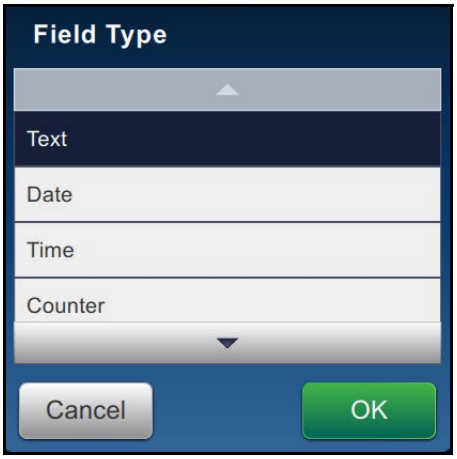


Figure 2-8: Add Field Options

8. Set the Text type to User Prompted as shown in Figure 2-9 and save the field.

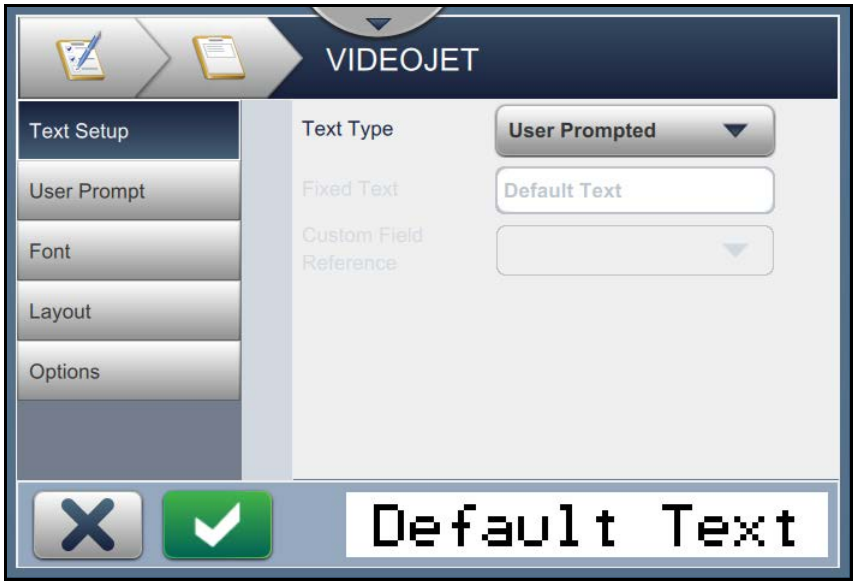


Figure 2-9: Field Settings Screen

9. Create another text field, perform Step 7 to Step 8 and Job Editor screen is as shown in Figure 2-10.

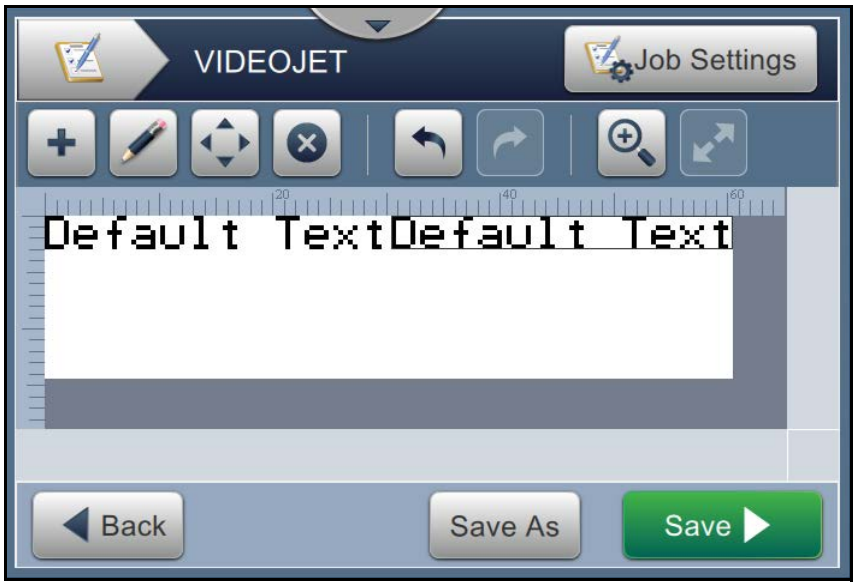


Figure 2-10: Job Editor Screen

10. Touch the *Save* button to save the job.
11. Now the job is available in the job list. Select the job and click on the *Run Job* button.

12. Click on the *Load Job* button to load the job. The Home screen opens as shown in Figure 2-11.

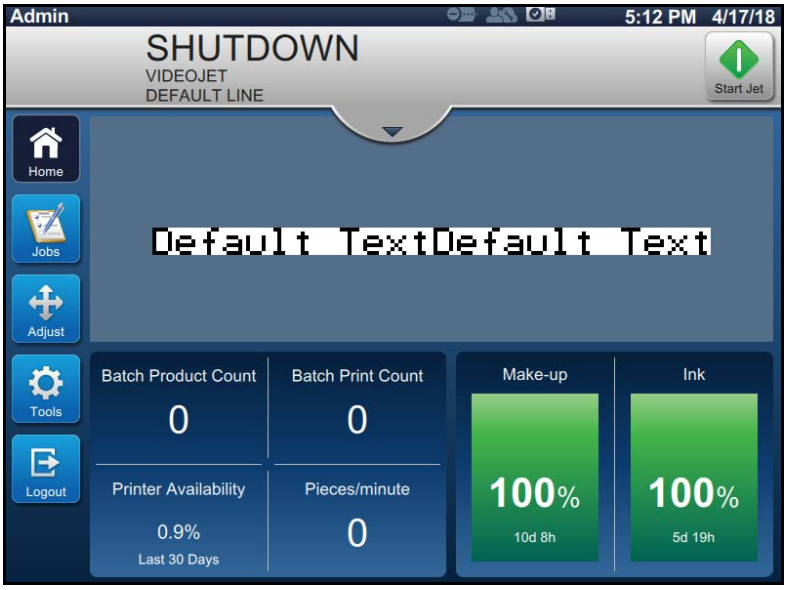


Figure 2-11: Home Screen

13. Perform Step 1 to Step 12 to create a new job called MESSAGE1.

2.4.2 Barcode Scanner/Data Source Programming

The barcode data should have the following prefix and suffix so that it can be detected by the barcode scanner.

- Start of Text Character STX or 00x02 hexadecimal
- End of Text character ETX or 00x03 hexadecimal
- Characters sent must be in ASCII characters

For example, the barcode data: [02]!VIDEOJET[03]

[02] = STX Start of Text Character

[03] = ETX End of Text Character

This example will select the job “VIDEOJET” from the printer’s memory of Job list.

Note: *The data is case sensitive so if the Job is stored as “videojet” this will not be recalled from memory, the name must be “VIDEOJET”.*

2.4.3 Test Program

2.4.3.1 Example 1

The barcode data: [02]!VIDEOJET[03]

This example will select the job “VIDEOJET” from the printer’s memory of job list.

***Note**: This data is case sensitive so if the job is stored as “videojet” this will not be recalled from memory. The name must be “VIDEOJET”.*

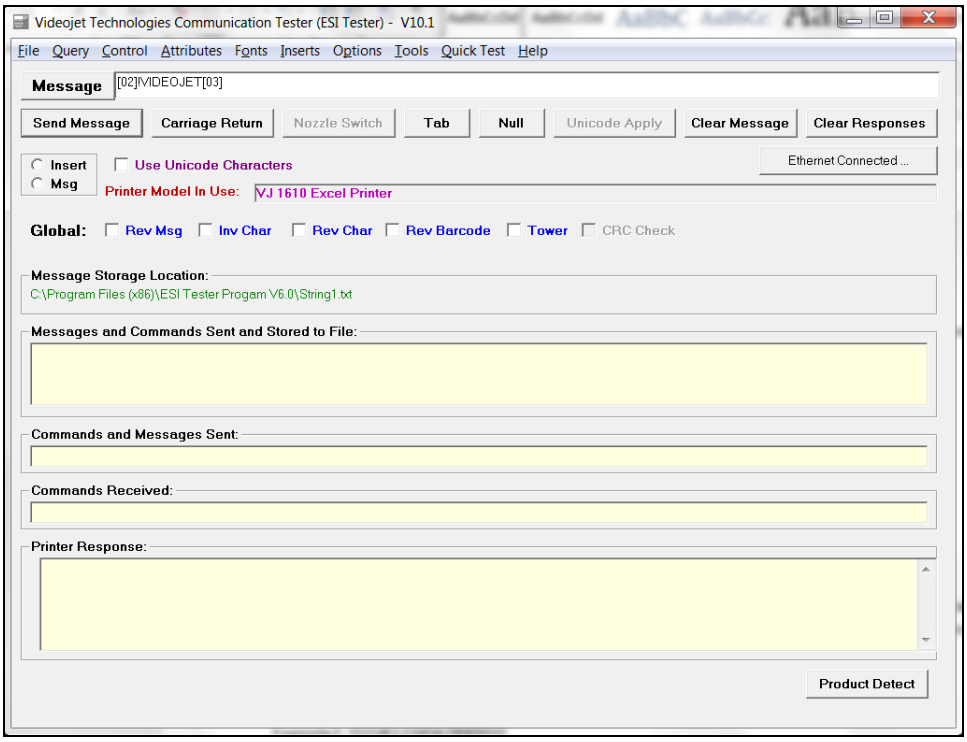


Figure 2-12: ESI Tester - Example 1

Using ESI Tester program to send the RS-232 control characters and ASCII text to printer.

2.4.3.2 Example 2

The barcode data: [02]@1234567890[03]

This example will populate the user field 1 (first entered job) with the characters of “1234567890”.

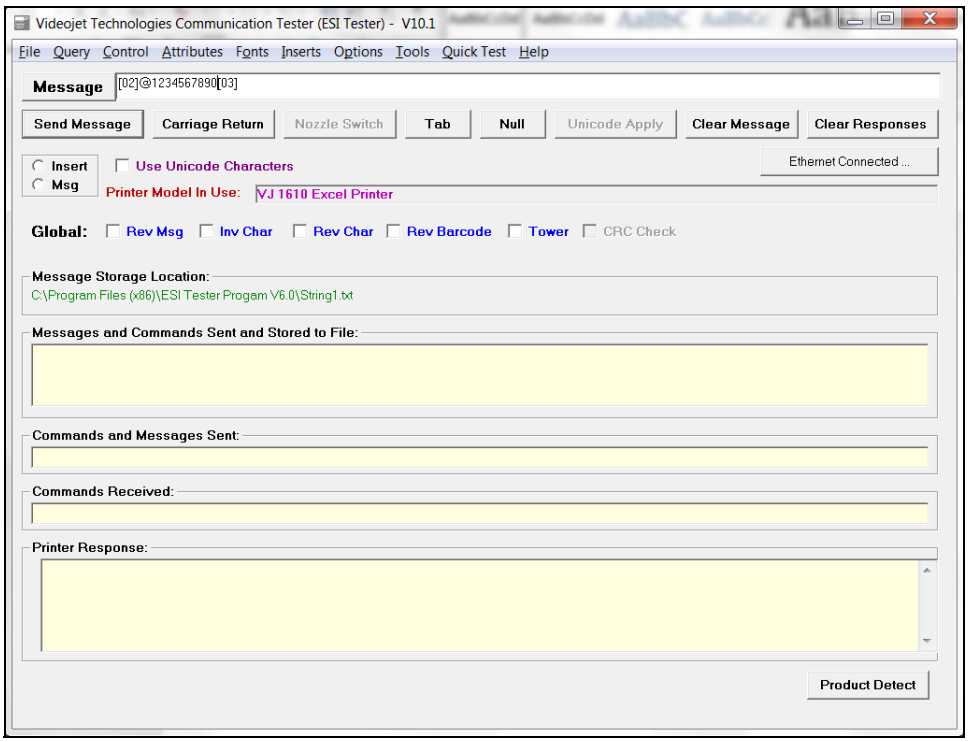


Figure 2-13: ESI Tester - Example 2

2.4.4 Testing Setup

Using the ESI Tester program or a barcode scanner, the test screen will allow the operator to see what the external device is sending into the printer.

Data sent from ESI Tester or Barcode Scanner: [02]VIDEOJET[03]

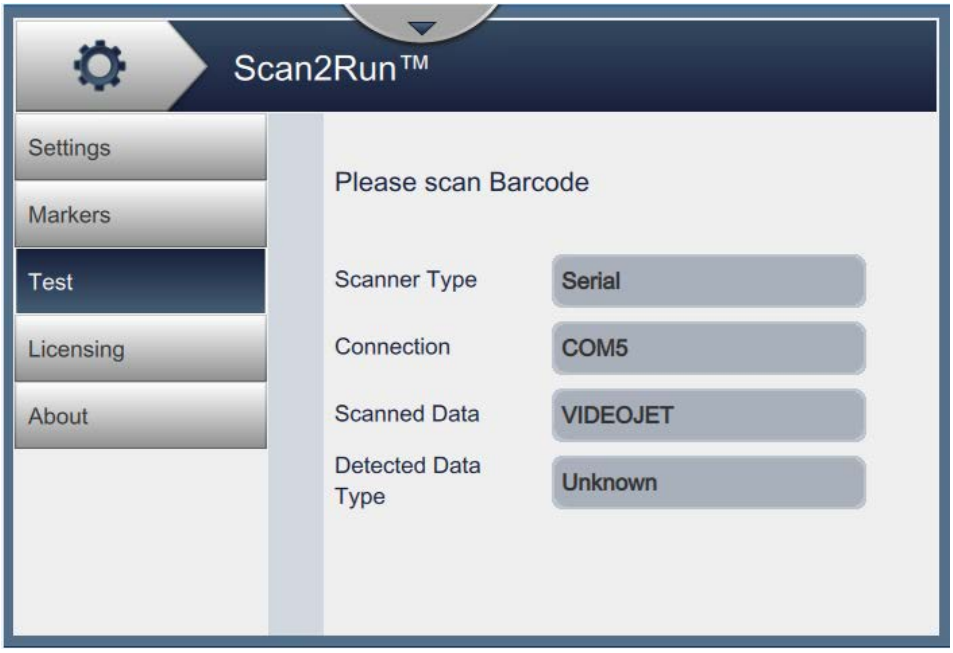


Figure 2-14: Test Screen 1

1. Confirm the Scanned Data shows “VIDEOJET”.
2. The Detected Data Type displays “Unknown” because the data does not contain a known marker or does not match a name of a job in the printer’s memory.

Figure 2-15: Barcode - Test 1

Data sent from ESI Tester or Barcode Scanner: [02]@1234567890[03]

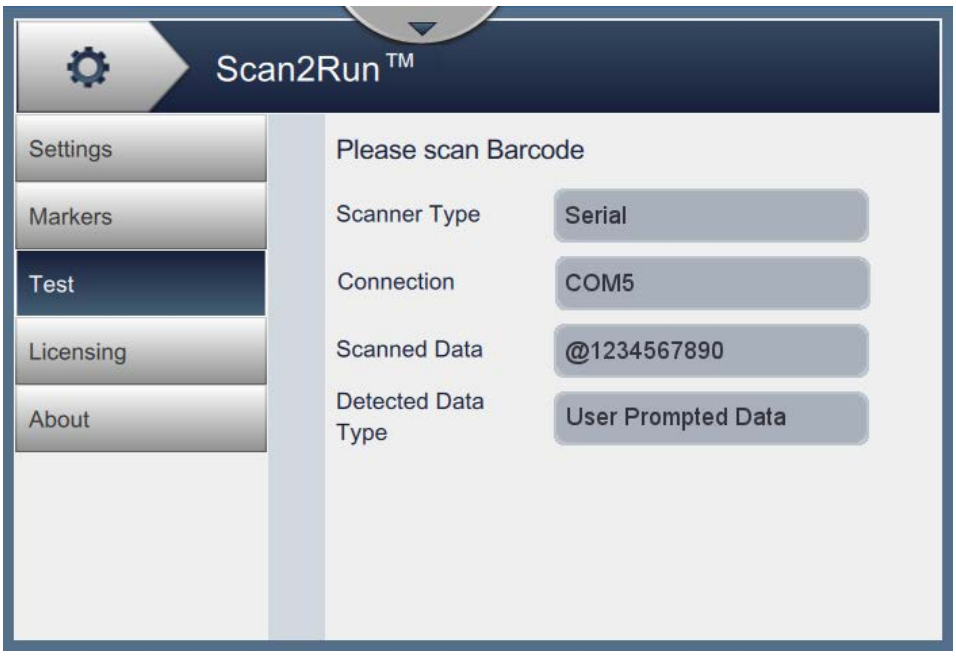


Figure 2-16: Test Screen 2

1. Confirm the Scanned Data shows“@1234567890”.
2. The Detected Data Type displays “User Prompted Data” because the scanned data is leading with a “@” which is setup as one of the printer user field markers.
3. The printer can recognize the data as user prompted data and places this data into the specified location within the job.

Figure 2-17: Barcode - Test 2

Data sent from ESI Tester or Barcode Scanner: [02]!MESSAGE1[03]

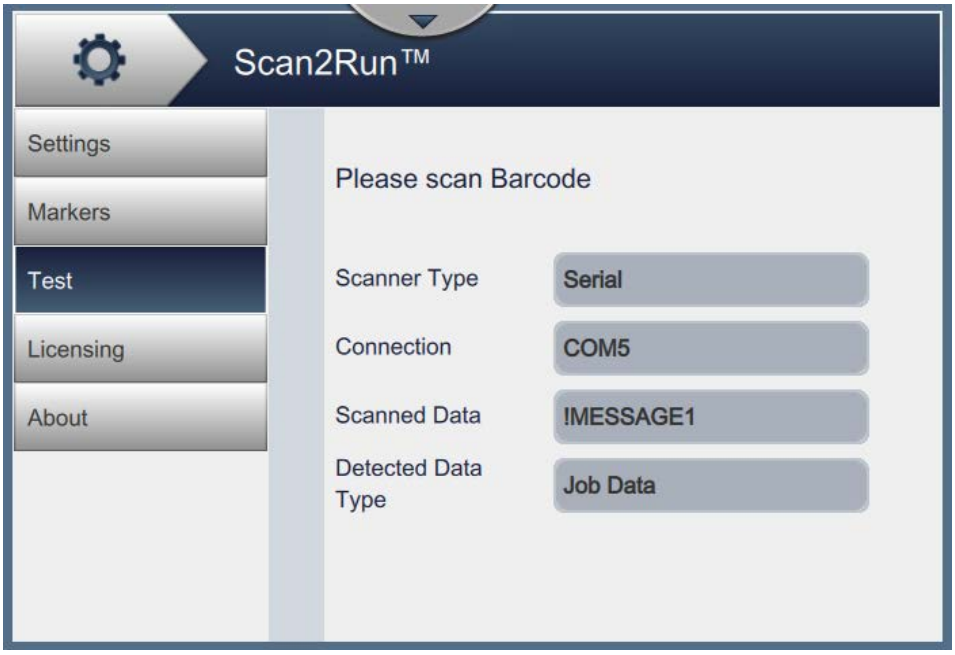


Figure 2-18: Test Screen 3

1. Confirm the Scanned Data shows “!MESSAGE1”.
2. The Detected Data Type text displays “Job Data” because the scanned data is leading with a “!” which is setup as the job marker.
3. The printer can recognize the data as job name and will call the job MESSAGE1 from the printer’s memory.

   Note: *If there are no markers setup the printer will assume that each inbound data string represents a job name.*

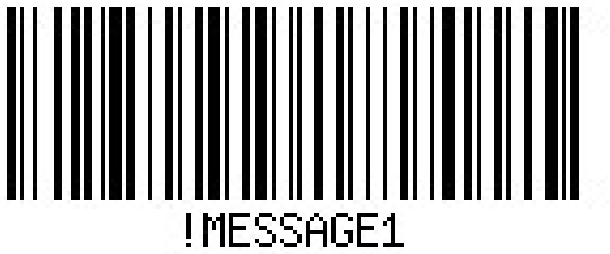


Figure 2-19: Barcode - Test 3

Section 3 Programming the Scanner

3.1 How to Program Barcode Scanner to Send STX Prefix and ETX Suffix

Do the following tasks to scan the barcode using RS232/USB barcode scanner:

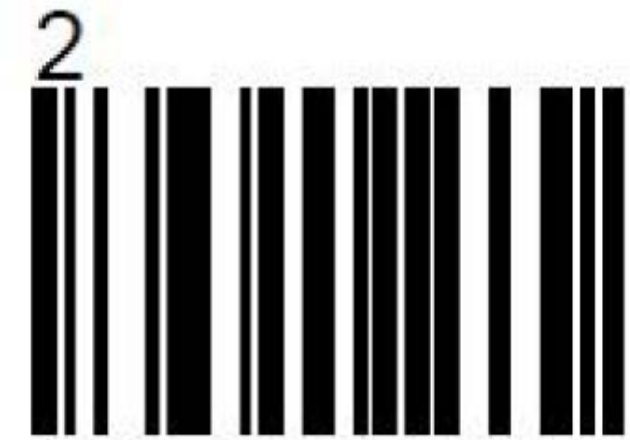
Note: *1) For RS232 barcode scanner, follow Step 1 to Step 8.*

2) For USB barcode scanner, follow Step 1 to Step 10.

1. Enter the Programming mode by scanning *Enter/Exit Programming mode* barcode.

2. Scan *Set Prefix* barcode.

3. Scan “0” and “2” barcodes. (Hex for STX).

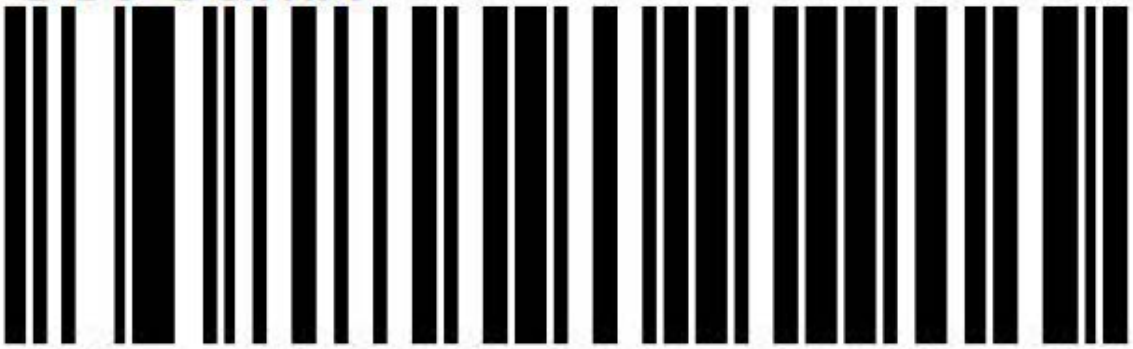


4. Save the prefix.

5. Enter the Programming mode by scanning *Enter/Exit Programming mode* barcode.

6. Scan *Set Suffix* barcode.

Set Suffix



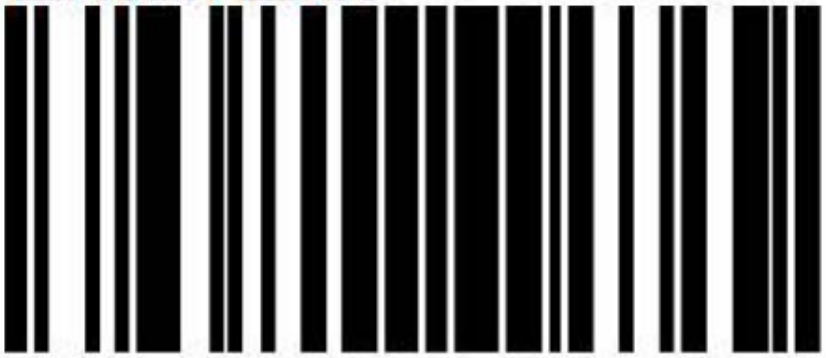
7. Scan “0” and “3” barcodes. (Hex for ETX).

0

3

8. Save the suffix.

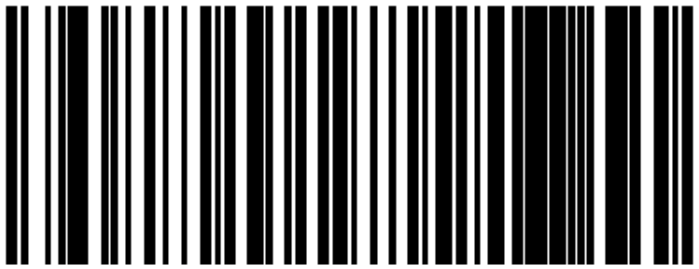
Enter/Exit



For USB Scanners Only:

9. Enable sending control characters.

Enter/Exit



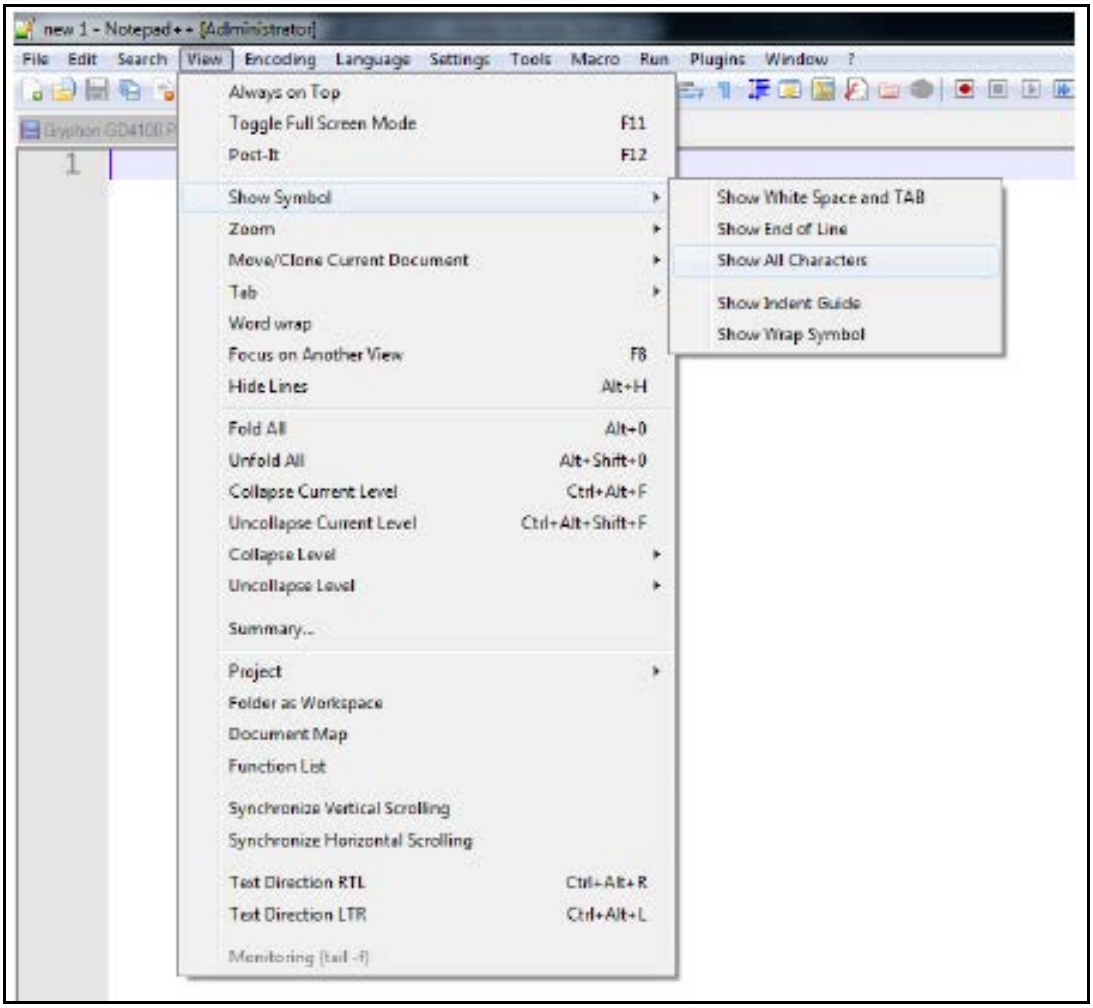
Wedge Send Control Characters = 01

Enter/Exit

10. Test USB scanner output as follows:

a. Open Notepad++.

b. Navigate to *View* > *Show Symbol* > *Show All Characters*.



c. Create a new document, place the mouse cursor in the document and scan the following barcode.

d. The output is displayed as shown in the Figure 3-1.

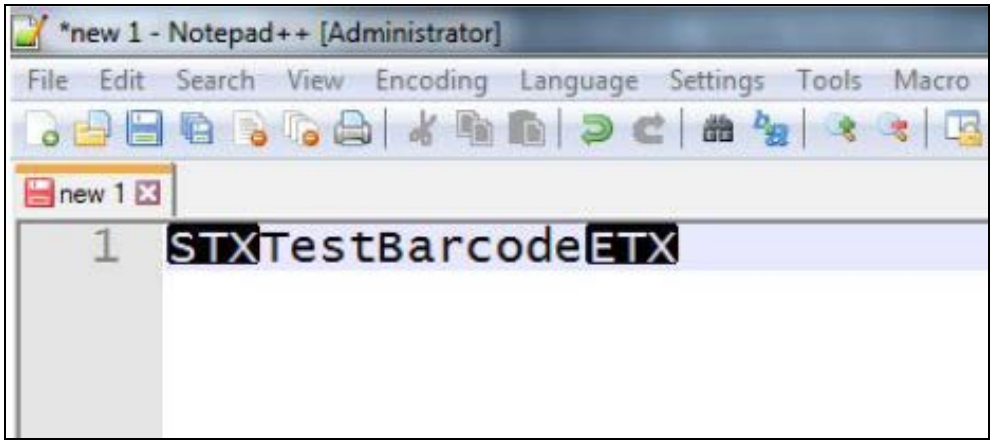


Figure 3-1: Output Screen

e. If the output is not as shown in the Figure 3-1, repeat Step 1 to Step 9.

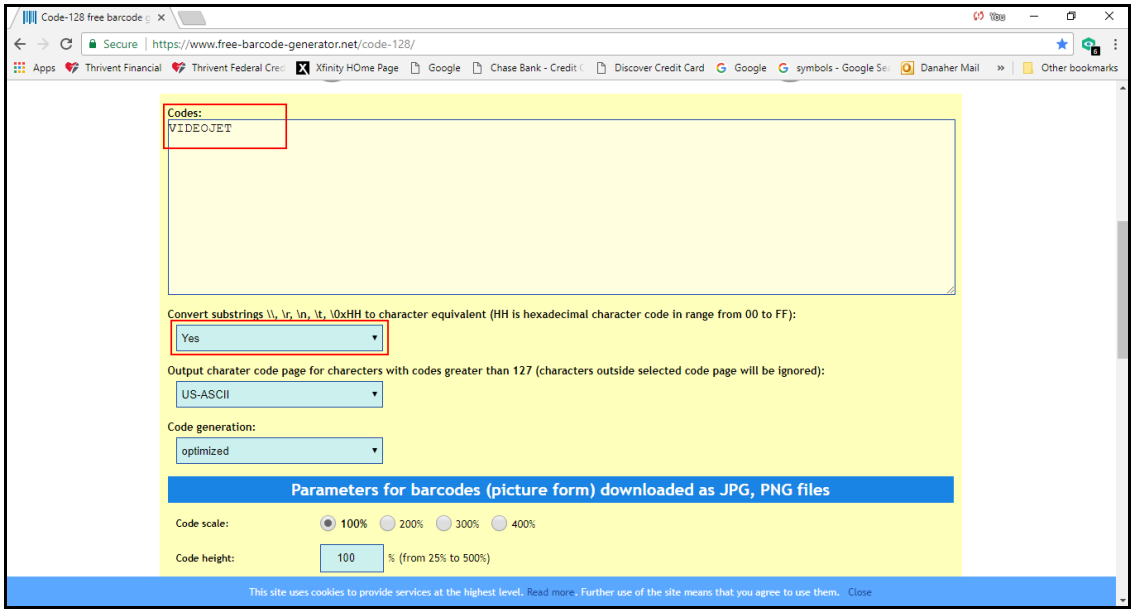
3.2 How to Create a Barcode Using Web Site

The following program is a free program that can be used from the internet. This can be used to create some barcodes to test the Scan2Run features.

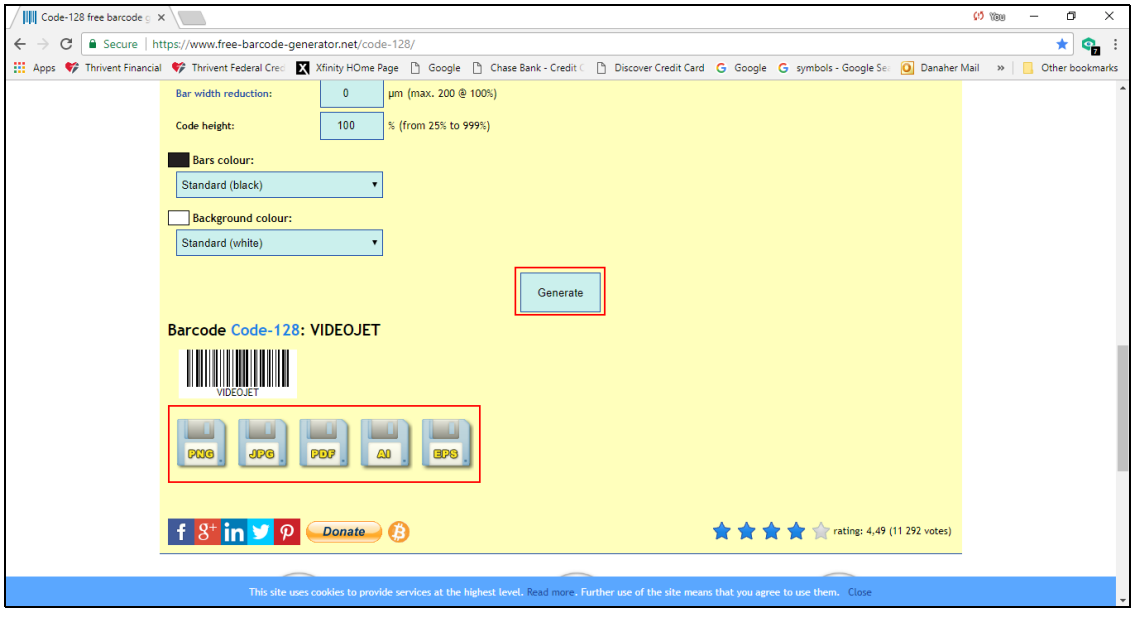
Web Site: https://www.free-barcode-generator.net/code-128/

Do the following tasks to create a barcode:

1. Enter the text to be inserted into barcode.
2. Set the Convert Substrings to *Yes*.



3. Click on *Generate* button.



4. Select JPG, this will create the barcode as an image.

   Note: *To read the barcode effectively, increase the size of the barcode.*

Now the image can be used to read from screen or paste into a document.

3.3 Additional Barcodes

Figure 3-2: 128 Barcode

Figure 3-3: UPC-A Barcode

Figure 3-4: Code 3 of 9 Barcode

Figure 3-5: Interleaved 2 of 5 Barcode