

SIMPLICITY[™]

Scan2Run[™] Workflow Module

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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.

Welcome	e			17:31	22/03/2017
	SHUTD Videojet line1	OWN			Start Jet
Home					
	ι	JIDE	OJE	Τ	
Adjust					
Cools	Batch Product Count	Batch Print Count	Makeup		Ink
Login	Printer Availability n/a Last 30 Days	Pieces/minute	100% 10d 13h	1	00% ^{7d 9h}

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).

Welcome		o))) <u>20</u> 1 1	17:31 22/03/2017
	SHUTDOWN Videojet line1		Start Jet
Home	Login To System	•	
Jobs	Role		
Adjust			
Tools			
Login			

Figure 1-2: Login Screen

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

Soft	ware Downloa	ad
Install Workflow Module(s)	Select Drive	USB Device 1
Uninstall Workflow Module(s)	Available Wor	kflow Module(s)
Upgrade System Software	Scan2Run 1.1.24059	
Downgrade System Software		
Connect to Videojet Workflow Portal		
Printer Information		
		Install

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.

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
<u></u>		•

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.

© Scan2Run™			
Settings	Enable Scan2Run		
Markers	Scanner Type USB ✓ Serial		
Test	Connection None		
Licensing	Please go to the Communications Tool and configure the Barcode Scanner.		
About			

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.

Communications			
Language	Baud Rate	9600	•
Print Ack	Data Bits	8	•
Transmit Field	Parity Bits	None	•
CijLan1	Flow Control	None	•
COM5	Stop Bits	1	-
COM6	Protocol	Scan2Run	-
COM7			
COM8			

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.

Scan2Run ™			
Settings	Enable Scan2Run	\checkmark	
Markers	Scanner Type	✓ USB	Serial
Test			
Licensing			
About			

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.

🔅 Scanź	2Run™	
Settings	Job Marker	!
Markers	Data Marker 1	@
Test	Data Marker 2	#
Licensing	Data Marker 3	\$
About	Data Marker 4	%

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	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
Data Marker 2	dynamically update the field(s) of the current job if the scanned barcode data is a user field data.
Data Marker 3	at the beginning of data read. This data will be placed into the user field
Data Marker 4	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.

Admin	A 17:31 22/03/2017
	SHUTDOWN Videojet line1
Home	+ New 🛛 🔍 Sort By Name 🗸
Jobs	test5 Test5_Job test6 Test6_Job
Adjust	Videojet
Q	· · · · · · · · · · · · · · · · · · ·
Tools	VIDEOJET
Logout	Delete Rename Edit Job Run Job

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.

VIDEOJET	Job Settings
Press + to add the first field.	
	_
Back Save As	Save 🕨

Figure 2-7: Job Editor Screen

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

Field Type	
Text	
Date	
Time	
Counter	
-	_
Cancel	ОК

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.

VIDEOJET	Job Settings
+ 🖉 🗘 😆 🕤 🧖	
Default TextDefau	lt Text

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".

loosago			
iend Message Carriage Return Nozzle Switch Tab Null U	nicode Apply C	ear Message	Clear Responses
Insert Use Unicode Characters		Eti	nemet Connected
Msg Printer Model In Use: VJ 1610 Excel Printer			
lobal: 🗌 Rev Msg 📄 Inv Char 📄 Rev Char 📄 Rev Barcode 📄 Tower	CRC Check		
essage Storage Location: .Program Files (x86)\ESI Tester Progam V6.0\String1.txt			
essages and Commands Sent and Stored to File:			
ommands and Messages Sent:			
ommands and Messages Sent			
ommands and Messages Sent: ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
ommands and Messages Sent:			
ommands and Messages Sent:			
ommands and Messages Sent:			
ommands and Messages Sent:			
ommands and Messages Sent: ommands Received: rinter Response:			

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".

Videojet Technologies Communication Tester (ESI Tester) - V10.1	CC 8	
<u>File Query Control Attributes Fonts Inserts Options Tools Quick Test H</u> elp		
Message [02]@1234567890[03]		
Send Message Carriage Return Nozzle Switch Tab Null Unicode Apply Clear M	essage	Clear Responses
C Insert Use Unicode Characters	Et	thernet Connected
O Msg Printer Model In Use: VJ 1610 Excel Printer		
Global: Rev Msg Inv Char Rev Char Rev Barcode Tower CRC Check		
Message Storage Location: C\Program Files (x86)\ESI Tester Progam V6.0\String1.txt		
Messages and Commands Sent and Stored to File:		
Commands and Messages Sent		
Commands Received:		
Printer Response:		
		<u>^</u>
		-
		Product Detect

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]

🔅 Scan	2Run™	
Settings	Disease acces Dave	a da
Markers	Please scan Bard	ode
Test	Scanner Type	Serial
Licensing	Connection	COM5
About	Scanned Data	VIDEOJET
	Detected Data Type	Unknown

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

Scan2Run™			
Settings	Please scan Barc	ode	
Markers	Scanner Type	Serial	
Test	Connection	COM5	
Licensing	Scanned Data	@1234567890	
About	Detected Data Type	User Prompted Data	

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]

Scan	2Run™	
Settings	Diagon coop Poro	odo
Markers	Please scan Barc	ode
Test	Scanner Type	Serial
Licensing	Connection	COM5
About	Scanned Data	IMESSAGE1
	Detected Data Type	Job Data

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

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.



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



8. Save the suffix.



For USB Scanners Only:

9. Enable sending control characters.





10. Test USB scanner output as follows:

- a. Open Notepad++.
- b. Navigate to View > Show Symbol > Show All Characters.

le Edit Search	View Encoding Language Settings	Tools Macro Run	Plugins Window ?
Caryonan GD4100.P	Always on Top Toggle Full Screen Mode Port-It	F11 F12	;,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Show Symbol Zoom Move/Clone Current Document Tab Word wrap Focus on Another View	, , , , , ,	Show White Space and TAB Show End of Line Show All Characters Show Indent Guide Show Wrap Symbol
	Hide Lines Fold All Unfold All Collapse Current Level Uncollapse Current Level Collapse Level Uncollapse Level Summary	Alt+H Alt+0 Alt+Shift+0 Ctrl+Alt+F Ctrl+Alt+Shift+F F	
	Project Folder at Workspace Document Map Function List Synchronize Vertical Scrolling Synchronize Horizontal Scrolling Test Direction RTL Test Direction LTR	> Ctil+Alt+R Ctil+Alt+L	

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.

File Edit	t Search	View	Encoding	Language	Settings	Tools	Macro
0	-	68	1 4 1	6 30	: # bg	1 3	R C
new 1	X						
1	STX	Test	Barc	ode	X		

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.

/ IIII Code-128 free barcode 🔉 X	(1) (100	- 0	×
← → C		* 9	. :
🔢 Apps 💗 Thrivent Financial 🖤 Thrivent Federal Crec 🚺 Xfinity HOme Page 🗅 Google 🗅 Chase Bank - Credit 🕒 Discover Credit Card 💪 Google 💪 symbols - Google Se. 🧕 Danaher Ma	il »	Other bookn	narks
Codes: VIDEOUPT Convert substrings \ \r, \n, \t, \0xHH to character equivalent (HH is hexadecimal character code in range from 00 to FF): Yes Convert substrings \ \r, \n, \t, \0xHH to character equivalent (HH is hexadecimal character code in range from 00 to FF): Yes Output charater code page for characters with codes greater than 127 (characters outside selected code page will be ignored): US-ASCI Code generation: optimized Parameters for barcodes (picture form) downloaded as JPG, PNG files			
Code scale: 100% 200% 300% 400%			
Code height: 100 % (from 25% to 500%)			
This site uses cookies to provide services at the highest level. Read more. Further use of the site means that you agree to use them. Close			-

3. Click on *Generate* button.

Code-128 free barcode 🔾 🗙		(1) Yeu	-	٥	×
← → C	ns://www.free-barcode-generator.net/code-128/				:
Apps 💔 Thrivent Financial	💔 Thrivent Federal Credi 🔀 Xfinity HOme Page 🍈 Google 🤺 Chase Bank - Credit 🤇 🍸 Discover Credit Card 🔓 Google G symbols - Google Se: 🧿 Danaher I	/ail »	Othe	r bookma	rks
	Bar width reduction: µm (max. 200 @ 100%)				1
	Code height: 100 % (from 25% to 999%)				
	Bars colour:				
	Background colour:				
	Standard (white)				
	Generate				
	Barcode Code-128: VIDEOJET				
	Video.et				
	f 8 ⁺ in ♥ ₽ Donato 3				
	This site uses cookies to provide services at the highest level. Read more. Further use of the site means that you agree to use them. Close				

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 3-3: UPC-A Barcode



Figure 3-4: Code 3 of 9 Barcode



Figure 3-5: Interleaved 2 of 5 Barcode