ARC Final Print. Zebra print code management for network printing.

- <u>Overview</u>
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### Overview

#### ARC Final Print

ARC Final Print receives data from Allen Bradley PLC messages using CIP protocol, retrieves print code from the selected storage location, replaces variables with the received data, and sends the print code to the selected network enabled printer that accepts Zebra ZPL code.

### What's new in version 3.1

### ARC Final Print

- 1. Ability to choose a secondary print code storage location.
- 2. More detailed error messages displayed.

# Using this software

ARC Final Print

Setting up the software

**Printing Test Labels** 

**Creating Print Code Files** 

**Storing Print Code** 

## Setting up the software

Using this software	

#### **Selecting print code storage locations:**

- 1. Click File from the menu.
- 2. Click "Select Print Code Primary Folder".
- 3. Choose location to be used as Primary Storage location.
- 4. Verify Storage location is correct on the display.

#### 5. Repeat 1 - 4 for secondary folder location

#### **Processor Type Selection:**

The type of PLC processor that will be sending the data to ARC Final Print can be selected from the Processor Type drop down selector.



#### ▼ Tip

Program must be restarted for processor change to take effect.

#### **Test Printing:**

Test printing can be enabled by checking the Enable Test Label Printing checkbox.

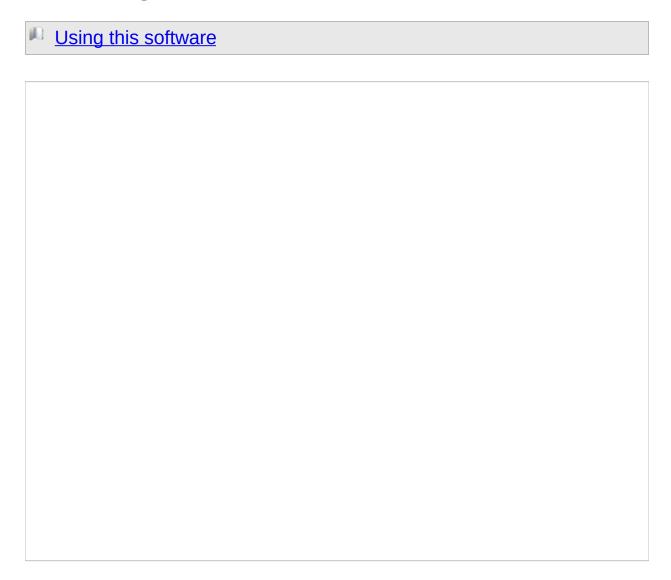
See Printing Test Labels.

#### **Error Display Box:**

All errors will be stored int the error display box with the timestamp and the sender IP.

Clicking the Clear button will clear the error display box.

### **Printing Test Labels**



Printing Test Labels:

- Enter an 11 character serial number to print. The alpha code (first 2 characters of the serial number) is used to load print code.
  - Print code is save as a text file named with the alpha code of the part. <u>See Storing Print Code</u>.
- 2. Enter the IP address of the target printer.
- 3. Select the folder that contains the print code of the label to

be printed.4. Click the Print Test Label button.

### Creating Print Code Files

#### Using this software

There are 4 variables used when creating print code files. All variables need to start and end with \_.

For example, when adding the serial number variable to the print code, it will look like: SerialNumber

Here is the 4 variables that will be replaced:

- 1. \_SerialNumber\_
- 2. Weight
- 3. \_Year\_
- 4. \_Month\_

# **Storing Print Code**

Using this software
Save print code in either the Primary Print Code storage location or the Secondary Print Code Storage Location.  Name the file the serial number alpha code (first 2 characters of serial number) and save as .txt file.

See Creating Print Code Files.

# Setting up PLC data

ARC Final Print

RSLogix 500 and RSLogix 5

RSLogix 5000

# RSLogix 500 and RSLogix 5

Setting up PLC data

RSLogix 500 Message Setup Populating Data Table in RSLogix 500 Copying ASCII Characters Into N Files

### RSLogix 500 Message Setup

RSLogix 500 and RSLogix 5	

#### This Controller settings:

- 1. Set Communication Command to PLC5 Write
- 2. Data Table Address should be set as an integer file (N). Populating data table to send.
- 3. Set Size In Elements to 19
- 4. Set Channet to 1 for ethernet communications.

Target Device settings:

- 1. Set Data Table Address to interger file reference element 0 (N\*\*:0).
- 2. Ethernet(IP) Address is the IP Address of the computer running ARC Final Print.

### Populating Data Table

RSLogix 500 and RSLogix 5						

Populate the data table as follows:

- Elements 0 10 should contain a single character of the serial number you want to print on the label. Element 0 should contain the first character, Element 1 should contain the second character, etc. <u>See copying ascii characters into N</u> files.
- Elements 12 and 13 should contain the weigh you wish to print on the label. If weight is not required, both elements should contain 0. The weight should be seperated into whole number and decimal, with the whole number placed in element 12 and the decimal should be muliplied by 100 and placed in element 13.
- 3. Elements 14 17 are the IP address of the printer you wish to print the current label on. For example, if the printer IP address is 192.168.1.101, element 14 would contain 192, element 15 would contain 168, element 16 would contain 1,

- and element 17 would contain 101.
- 4. Element 18 is used to choose which folder the print code is selected from. If Element 18 contains the value 2 the secondary storage location is used. If element 18 contains any value other than 2, the primary storage location is used.

# Copying ASCII characters into N files

RSLogix 500 and RSLogix 5

# RSLogix 5000

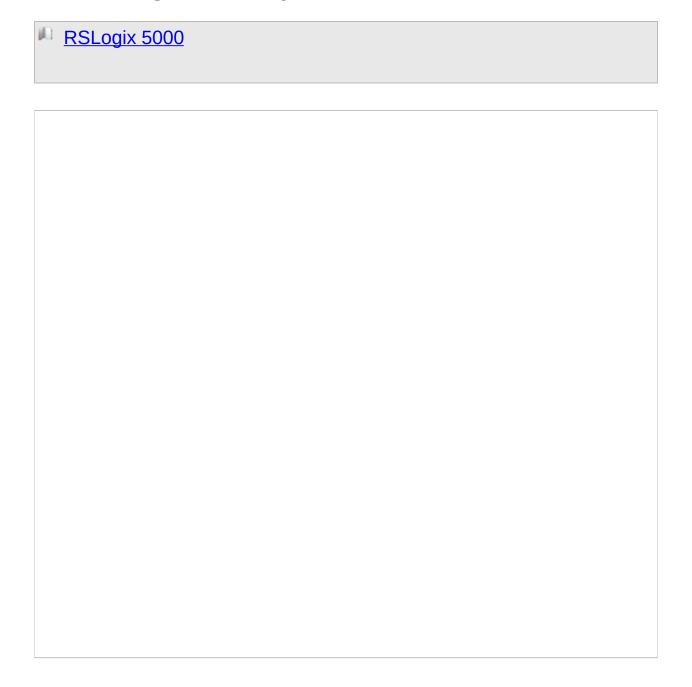
Setting up PLC data

RSLogix 5000 Message Setup

**Populating Data Array** 

**Ladder Logic Example** 

### Message Setup



- 1. Select Message Type of CIP Data Table Write
- 2. Create a new array of Type INT or Type DINT containing at least 19 elements, or select an existing array of Type INT or Type DINT that contains at least 19 elements.

Set number of elements to 19.  Destination Element should be set to DataToPrintServer[0].					

- 1. Set Path IP Address to the IP address of the computer running ARC Final Print.
- 2. Ensure the Connected checkbox is unchecked.

### Populating Data Array

RSLogix 5000

#### Populate the data array as follows:

- 1. Elements 0 10 should contain a single character of the serial number you want to print on the label. Element 0 should contain the first character, Element 1 should contain the second character, etc.
- 2. Elements 12 and 13 should contain the weigh you wish to print on the label. If weight is not required, both elements should contain 0. The weight should be seperated into whole number and decimal, with the whole number placed in element 12 and the decimal should be muliplied by 100 and placed in element 13.
- 3. Elements 14 17 are the IP address of the printer you wish to print the current label on. For example, if the printer IP address is 192.168.1.101, element 14 would contain 192, element 15 would contain 168, element 16 would contain 1, and element 17 would contain 101.
- 4. Element 18 is used to choose which folder the print code is selected from. If Element 18 contains the value 2 the secondary storage location is used. If element 18 contains any value other than 2, the primary storage location is used.

### Ladder Logic Example

RSLogix 5000
Copying serial number into data array: Move data elements 0 to 11 from the string into the data array to be sent.
Moving weight into data elements:  If weight is required on the barcode, place weight whole number in data array element 12 and weight decimal value into data array element 13.

#### Moving target printer IP address into data array:

ARC Final Print program can manage print code for multiple printers. The printer is selected by sending the IP address of the target printer from the PLC.

The IP address of the printer is moved into data array elements 14 to 17.

In the following example, the target printer IP address is 10.							50.193.73.		