

# BiSync Contention to TCP/IP Configuration Worksheet

## Overview

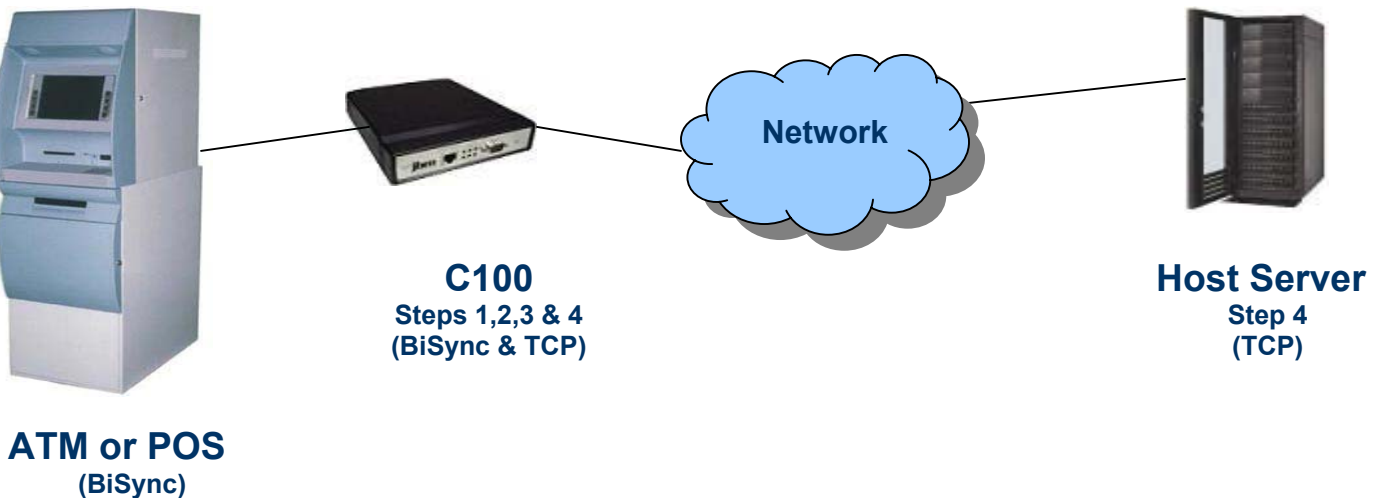
JBM Electronics provides a free configuration service for a sixty-day period, which starts as soon as you contact us for support. We will use the site information that you provide to build a configuration file for the Gateway.

The worksheets list the required information to successfully configure the unit. Proper completion of the worksheet will help ensure a smooth installation.

## Typical Terminals

This worksheet provides BiSync Contention support for RJE terminals. The protocol supports connection to only one terminal at a time. Communications are controlled through Bids, instead of polls. All program default options are shown in blue on this worksheet.

## SAMPLE Installation



## Applicable Units

The BiSync Contention protocol can be transmitted using async or sync transmission. The different Gateways support either one or both methods. The Async transmission method is the most popular as it can use less expensive transmission facilities. Please verify that you have ordered the correct unit for your network transmission type.

Model	Async VISA	Sync VISA
C100 Series	All	C102
C200 Series	All	C202
C3000 Series	All	-
G500 Series	All	All
G700 Series	All	All
G800 Series	All	All
G900 Series	All	All
G1000 Series	All	All

*Note: G1000 support is determined by the selected expansion Cards.*

## GENERAL INFORMATION

### Contact Information

Company Name: \_\_\_\_\_

Your Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Cell Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

Your Name: \_\_\_\_\_

Street Address 1: \_\_\_\_\_

Street Address 2: \_\_\_\_\_

City: \_\_\_\_\_

State / Province: \_\_\_\_\_

Zip Code: \_\_\_\_\_

Country: \_\_\_\_\_

## Delivery Instructions

Please indicate how you would like the configuration file provided to you:

Email as an attachment: \_\_\_\_\_  
Sent to your FTP Server: \_\_\_\_\_  
Placed on our FTP Server: \_\_\_\_\_

Special Instructions: \_\_\_\_\_

(For example: Rename the file from .zip to .zi to bypass email attachment scanning.)

## Unit Identification

Model Number \_\_\_\_\_

Serial Number \_\_\_\_\_

*Note: This information is on the serial number sticker on the bottom of the unit.*

Special cables \_\_\_\_\_ (for example: G50 Adapter)

## Worksheet Instructions

In the following sections, you will find many configuration questions. The majority of the questions are defaults (defaults are in [blue](#)) and can be safely ignored. They are listed for the few installations that have specially modified their networks.

Please review the options and make any changes on the form to match the information provided by your network administrator. If you have any questions, please contact us for guidance.

Once this document is complete, email it to [support@jbmelectronics.com](mailto:support@jbmelectronics.com). You can also fax it to JBM at 314-426-0007. We will contact you if we have any questions. Once both companies are in agreement that the selected parameters are reasonable, we will build the configuration file and send it to you via the method selected below.

## Step #1 – BiSync Interface Parameters

These parameters in this section are installation dependent and must match your specific device.

Port Mode (DCE, **DTE**): \_\_\_\_\_

This option determines if the Gateway RS-232C Connector will provide clocking to the attached device. If so, select **DCE**. If the attached device (for example: modem) will provide clocking to the port, select **DTE**. The port setting on the Gateway must be the opposite of the attached device. If a **DTE** interface is required, a special adapter is required. Refer to the unit's cable wire list supplied on the installation CD or on our home page.

Line Speed (57600, 38400, 28800, 25600, 19200, 14400, **9600**, 7200, 4800, 3600, 2400, 1800, 1200): \_\_\_\_\_

The port provides clocking for the attached device when the port is set to DCE. Otherwise, the attached device defines the line speed.

CTS Behavior (Constant, Switched): \_\_\_\_\_

DCD Behavior (Constant, Switched): \_\_\_\_\_

Block Size (128-4096 bytes): \_\_\_\_\_

This option determines the size of the blocks used by the BiSync network. The port can use any size bisync block from 128 to 4096 bytes. The actual value expected by the network must be entered in hex.

Line Encoding (NRZ, NRZI): \_\_\_\_\_

Data Format (EBCDIC, ASCII): \_\_\_\_\_

The value in this field must match the attached device/network.

Interface Type (RS232, V.35): \_\_\_\_\_

Independent DTR/DSR (Yes, No): \_\_\_\_\_

Independent Activation: (Yes, **No**): \_\_\_\_\_

This option determines if the poll/select side of the Gateway will accept data BEFORE the other side (as defined by the routing table) is active. At least one of the two sides in the routing table must be set for Independent Activation. If neither side is set, then the Gateway will not accept data. This function provides integrity for the Gateway by preventing data from being accepted until it can be routed to the other address (connection) and successfully delivered.

## Step #2 - BiSync Protocol Parameters

Emulation Type (**Host**, Terminal): \_\_\_\_\_

This option specifies the timeout value used for the connection. The Host value is 3 seconds and the Terminal value is 1 second.

Terminal Type (**2770**, 2780, 3741, 3780): \_\_\_\_\_

This option specifies the unique characteristic and data manipulation used by the Gateway when communicating with the attached device.

Transparency (Yes, **No**): \_\_\_\_\_

The port supports bisync transparent text. When implemented (Yes), the port will transmit data link control characters to the bisync device/network using bisync transparency. The bisync device must support transparency. If the option is not selected (No), the port will convert any transparent data to periods.

Component Selection (Enable, **Disable**): \_\_\_\_\_

With Component Selection, individual devices attached to an RJE Controller can be directly addressed by the port or network. Examples of these devices include printers, tape drives, displays, etc. This function is the equivalent of 3270 device addressing for RJE terminals.

Compression (Enable, **Disable**): \_\_\_\_\_

The port will accept compressed spaces and characters from the Bisync network. When a compressed space or character is received, the port expands the spaces before transmitting the data to the other device.

When this option is selected (YES) along with one of the RJE (2770, 2780, 3741 or 3780) protocols, the port will compress consecutive spaces (or characters) before sending them to the network.

Delivery Confirmation (Enable, **Disable**): \_\_\_\_\_

This is an integrity option that specifies how the port will process blocks received from the network. If Disable is selected, the port will only accept one block at a time. The port will not accept another block until the first block has been transmitted to the other device (protocol) and the Gateway has received a protocol level acknowledgment for the block.

If Enable is selected, the Gateway will accept blocks until the buffer becomes filled. Once this occurs will the Gateway stop accepting blocks. As buffer space becomes available, the Gateway will accept further blocks. If this option is not implemented, the port will provide greater integrity and is more consistent with normal operation since the host is informed after each block is received. If this option is implemented, it is possible that data may be lost (for example: a power

failure). However, since the Gateway will buffer several blocks, faster throughput may be achieved.

Character Conversion (Yes, **No**): \_\_\_\_\_

This option determines if the data will be converted from ASCII to EBCDIC. If this option is selected, then the data will be converted before it is sent to the destination.

Tunnel Line Bids (Yes, No): \_\_\_\_\_

End-to-End Blocking (Enable, Disable): \_\_\_\_\_

Disconnect (Enable, Disable): \_\_\_\_\_

DSR Timer (0-255 Seconds): \_\_\_\_\_

Strip Format Commands (Yes, No): \_\_\_\_\_

Headers (Yes, No): \_\_\_\_\_

Transfer Mode (**Upload**, Download): \_\_\_\_\_

Split Records (**Yes**, No): \_\_\_\_\_

Pass-through (Yes, **No**): \_\_\_\_\_

Dial Type (**None**, DTR, V.25 BiSync, V.25 SDLC NRZ, V.25 SDLC NRZI, V.25 Async, V.25 Stored Number, Hayes Async-to-Sync, DTR AS400, SADL, DTR with "CNX", Ring Indicator): \_\_\_\_\_

Dial Character Set (EBCDIC, **ASCII**): \_\_\_\_\_

Connect Timer (0-255 Seconds): \_\_\_\_\_

Use Table Routing (Yes, **No**): \_\_\_\_\_

Bid Limit (0-255): \_\_\_\_\_

TTD Spoofing (Yes, No): \_\_\_\_\_

Phone Number (10 Digits): \_\_\_\_\_

### Step #3 - TCP Port Parameters

This section is used to specify the information used to communicate with the IP network and application.

Port Definition Name: \_\_\_\_\_

This is the text description that will be associated with this port. When viewing statistics this is the port name that will be displayed. We recommend a name that will be easily recognizable. If you leave this field blank, we will assign a generic value.

Will the JBM Gateway act as a Client or a Server? \_\_\_\_\_

If the JBM Gateway is acting as a Client, the unit will initiate a connection to a remote TCP server at a specific IP address and Port number. *If the Gateway needs to act as a Client, please fill out the client information section.*

If the JBM Gateway is acting as a Server, the unit will be in a listening state at a specific port waiting for a remote client to make a connection to it. *If the Gateway needs to act as a Server, please fill out the server information section.*

#### TCP Client Configuration

Independent Activation: (Yes, No) \_\_\_\_\_

This option determines if the Gateway will start the TCP link before the connection to the TC500 device(s) is established.

IP Address of the Gateway: \_\_\_\_\_

This must be a unique address for each device in the network and is configured using the niccfg script. At your root Linux prompt, type niccfg eth0 and follow the onscreen prompts to complete your IP address configuration. Refer to the unit's Operation Manual supplied on the installation CD or on our home page.

Destination IP Address and Port Number: \_\_\_\_\_

This refers to the IP Address and Port Number of the remote Server to which the unit will connect.

Headers: \_\_\_\_\_

The option determines if the Gateway adds special headers when communicating with TCP applications. This is needed if framing of the data is required and the TCP application supports the headers. The most commonly used header is JBM standard. This is a 2-byte length header in network order format that does not include itself in the length.

## TCP Server Configuration

Independent Activation: (Yes, No)

This option determines if the Gateway will start the TCP link before the connection to the TC500 device(s) is established.

IP Address of the gateway: \_\_\_\_\_

This must be a unique address for each device in the network and is configured using the niccfg script. At your root Linux prompt, type niccfg eth0 and follow the onscreen prompts to complete your IP address configuration. Refer to the unit's Operation Manual supplied on the installation CD or on our home page.

Listening Port Number: \_\_\_\_\_

This is the Port Number at which we will be listening for a connection from a remote TCP client.

Allow Peer to Re-attach While Connected (Yes, No): \_\_\_\_\_

If a remote client's connection is interrupted and does not disconnect gracefully, this option can allow a new connection to override the previous (old) connection. This procedure will only work when a single connection is expected from a remote IP device. If multiple Clients attempt to establish connections from the same remote IP Address, this option must be set to No.

## Fallback Routing

One of the major capabilities available with the Gateways is the ability to route the data to different destinations in the event that the primary connection is disrupted. The data can be routed to another destination on the same connection, or if an alternate path is available, through another media (for example: a POTS modem). If fallback is required, you can specify the destinations and when the fallback is attempted.

Because of the numerous options available with fallback routing, we recommend that you contact JBM support for guidance. We will prepare the appropriate worksheets after consultation and then add to the Gateway's configuration.

## Summary

Once this document is complete, email it to [support@jbmelectronics.com](mailto:support@jbmelectronics.com). You can also fax it to JBM at 314-426-0007. We will contact you if we have any questions. Once both companies are in agreement that the selected parameters are reasonable, we will build the configuration file and send it to you via the method selected above.