

## Overview

This document will help you set up your Ross Video Vision QMD/X switcher to communicate with an Evertz® 7700PTX-CTP Translator and an Evertz® MVP®/VIP™. An RS-422 serial connection is created between the Vision switcher and the 7700PTX-CTP, and a TCP/IP connected is created between the 7700PTX-CTP and the MVP/VIP.

When proper communications are set up, and the Evertz MVP/VIP has been set up, mnemonic and tally information is transferred from the switcher to the on-screen Under Monitor Displays controlled using the MVP Maestro interface.

(MVP, VIP, and Maestro are registered and unregistered trademarks of Evertz Microsystems Ltd.)

## Requirements

To complete this procedure and properly set up communications between the Vision switcher and the Evertz 7700PTX-CTP Translator, you must have the following software, options and components:

- Vision QMD/X Multi-Definition Digital Production Switcher, version **11.0a**, or higher.
- Evertz 7700PTX-CTP Translator, version **1.00**, or higher.
- Evertz MVP/VIP Maestro, version **2.8.6**, or higher.
- Ross Video Serial Tally Software Option.
- Serial Interface Cable (DB9 to Phoenix Terminal Block).
- Configuration of the 7700PTX-CTP should be completed by Evertz from the factory. If additional configuration is required, a direct serial connection with a HyperTerminal is needed. Refer to the documentation that came with your 7700PTX-CTP for more information.

## Port Connections

A serial cable connects from the DB9 Peripheral port at the back of the QMD/X frame, to the Phoenix Block connector on the Evertz 7700PTX-CTP Translator. The serial cable can be configured to connect to any of the three RS-422 port pins on the phoenix block connector.

**Note** — This is not the standard pinout for the Peripheral port of the switcher. You must set the **Com Type** to **RS-422 Null** to compensate for this pinout.

You will need to remember the specific Peripheral port on the switcher and Com port on the 7700PTX-CTP that you connected the serial cable to when you are configuring the ports to communicate with each other.

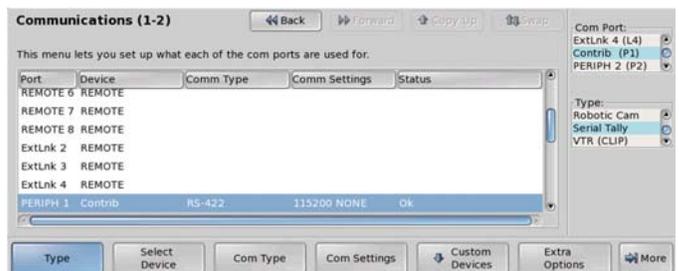
## Pinouts

Switcher	7700PTX-CTP		
	Com1	Com2	Com3
2 (Tx-)	4 (Rx-)	10 (Rx-)	16 (Rx-)
3 (Rx+)	3 (Tx+)	9 (Tx+)	15 (Tx+)
7 (Tx+)	2 (Rx+)	8 (Rx+)	14 (Rx+)
8 (Rx-)	1 (Tx-)	7 (Tx-)	13 (Tx-)

## Switcher Setup

This section provides information on setting up the serial, RS-422, communications between the switcher and the 7700PTX-CTP.

1. Press **HOME** ⇒ **Setup** ⇒ **Installation** ⇒ **Com Setup** ⇒ **Type**.
  - Use the **Com Port** knob to select the **PERIPH X** port that you connected the 7700PTX-CTP to, where **X** is the number of the port.
  - Use the **Device** knob to select **Serial Tally**.



Device Type — Communications Menu 1-2

2. Press **Select Device**.
  - Use the **Device** knob to select **Contrib**.
3. Press **Com Type**.
  - Use the **Type** knob to select **RS-422 Null**.
4. Press **Com Settings**.
  - Use the **Baud** knob to select **115200**.
  - Use the **Parity** knob to select **NONE**.
5. Press **Extra Options**.

Extra Options	Value
Rate	26 (default)
Data Txfr	Complete (default)



Extra Options	Value
Start	None (default)
At Black	All Off (default)
Source Name	Bnc Name (default)

6. Press **HOME** ⇒ **Confirm**.

## Device Setup

This section provides information on setting up the 7700PTX-CTP to communicate with the switcher over RS-422 Serial and the MVP/VIP over TCP/IP. Both of these connection are required for the system to operate properly.

### 7700PTX-CTP Setup

1. Connect a computer to the 7700PTX-CTP using the Evertz supplied serial cable via the 4-pin UPGRADE connector.
2. Use PuTTY or HyperTerminal (Terminal on Mac OS® X) to connect to the 7700PTX-CTP at 115200 Baud. You may have to download and install PuTTY on your Windows® 7 computer if it is not already installed on your computer.

```

|-----|
| Main Menu                               |
| (7700PTX-CTP v1.00 b67)                |
|-----|
| (1) Network Configuration               |
| (2) Serial Port Setup                   |
| (3) Contribution Tally Protocol Settings Setup |
| (4) Under Monitor Display Peer Setup    |
| (5) Engineering/Debug                  |
| (X) Exit                                |
| > |                                     |
|-----|

```

Main Menu

3. From the **Main Menu** of the 7700PTX-CTP, press **(1) Network Configuration**.

```

|-----|
| Network Configuration                   |
| (7700PTX-CTP v1.00 b67)                |
|-----|
| MAC: 00:02:c5:10:33:9a                 |
| ip address: 192.168.0.200                |
| netmask address: 255.255.255.0           |
| gateway: 192.168.0.1                     |
| broadcast address: 192.168.0.255         |
| DHCP enabled: False                     |
|-----|
| (1) Set IP Address                       |
| (2) Set Netmask                          |
| (3) Set Gateway                          |
| (4) Set Broadcast Address                |
| (5) Use DHCP                             |
| (S) Save and Exit                        |
| (X) Exit                                |
| > |                                     |
|-----|

```

Network Configuration

4. Enter the required **IP Address**, **Subnet Mask**, and **Gateway**. This assigns an IP Address to the 7700PTX-CTP, that the MVP/

VIP can use to connect to. The 7700PTX-CTP must be restarted for these settings to take affect. We will restart the 7700PTX-CTP at the end of this procedure.

5. Press **(S) Save and Exit**.

```

|-----|
| Main Menu                               |
| (7700PTX-CTP v1.00 b67)                |
|-----|
| (1) Network Configuration               |
| (2) Serial Port Setup                   |
| (3) Contribution Tally Protocol Settings Setup |
| (4) Under Monitor Display Peer Setup    |
| (5) Engineering/Debug                  |
| (X) Exit                                |
| > |                                     |
|-----|

```

Main Menu

6. From the **Main Menu** of the 7700PTX-CTP, select **(2) Serial Port Setup**. On this menu, we will enter the same serial connection values that you set up on the switcher.

```

|-----|
| Serial Port Setup                       |
| (7700PTX-CTP v1.00 b67)                |
|-----|
| (1) Serial Port 1 Setup                 |
| (2) Serial Port 2 Setup                 |
| (3) Serial Port 3 Setup                 |
| (4) Serial Port 4 Setup                 |
| (5) Show all setups                     |
| (X) Exit                                |
| > |                                     |
|-----|

```

Serial Port Setup

7. Select the **Serial Port X Setup** for the port that is connected to the switcher, where **X** is the number of the port.

```

|-----|
| Serial Port 1 Setup                     |
| (7700PTX-CTP v1.00 b67)                |
|-----|
| Baud Rate: 115200                       |
| Data Bits: 8                             |
| Parity: None                             |
| Stop Bits: 1                             |
| Standard: RS 422                         |
|-----|
| (1) Set baud rate                       |
| (2) Set number of data bits              |
| (3) Set parity                           |
| (4) Set number of stop bits              |
| (5) Set standard                         |
| (S) Save and Exit                        |
| (X) Exit                                |
| > |                                     |
|-----|

```

Serial Port 1 Setup

8. For the selected **Serial Port** enter the following parameters.

Parameter	Value
Baud Rate	<b>115200</b>
Data Bits	<b>8</b>
Parity	<b>NONE</b>

Parameter	Value
Stop Bits	1
Standard	RS 422

9. Press **(S)** Save and Exit.

```

|-----|
|           Main Menu           |
| (7700PTX-CTP v1.00 b67)     |
|-----|
| (1) Network Configuration    |
| (2) Serial Port Setup        |
| (3) Contribution Tally Protocol Settings Setup |
| (4) Under Monitor Display Peer Setup |
| (5) Engineering/Debug        |
| (X) Exit                      |
| > |                            |
|-----|

```

Main Menu

10. From the **Main Menu** of the 7700PTX-CTP, select **(3) Contribution Tally Protocol Settings Setup**. On this menu, we will set how the 7700PTX-CTP passes contribution tally information between the switcher and the MVP/VIP.

```

|-----|
| Contribution Tally Protocol Settings Setup |
| (7700PTX-CTP v1.00 b67)                 |
|-----|
| (1) CTP Setup For Serial Port 1          |
| (2) CTP Setup For Serial Port 2          |
| (3) CTP Setup For Serial Port 3          |
| (4) CTP Setup For Serial Port 4          |
| (5) Show all setups                      |
| (X) Exit                                |
| > |                                    |
|-----|

```

Contribution Tally Protocol Settings Setup

11. Select the **CTP Setup For Serial Port X** for the port that is connected to the switcher, where **X** is the number of the port.

```

|-----|
| CTP Setup For Serial Port 1              |
| (7700PTX-CTP v1.00 b67)                 |
|-----|
| VGPI Image Video Dsp Id: 500             |
| VGPI Refresh Count: 750                  |
|                                           |
| Program Output Number: 5                 |
| Program VGPI Offset: 0                   |
| Tx Program UMD: y                        |
| Program UMD Dsp Id: 129                  |
|                                           |
| Preview Output Number: 6                 |
| Preview VGPI Offset: 100                 |
| Tx Preview UMD: y                        |
| Preview UMD Dsp Id: 130                  |
|                                           |
| Tx Source Names: y                       |
| Src Names Refresh Count: 20              |
| Src Names Dsp Id Offset: 0               |
|                                           |
| Include Non-Physical Sources             |
| with VGPIs and Source Names: y          |
|-----|
| (1) Set VGPI image video display Id      |
| (2) Set VGPI refresh count               |
| (3) Set the program output number        |
| (4) Set the program VGPI offset         |
| (5) Enable/disable program UMD transmission |
| (6) Set program UMD display Id          |
| (7) Set the preview output number        |
| (8) Set the preview VGPI offset         |
| (9) Enable/disable preview UMD transmission |
| (10) Set preview UMD display Id         |
| (11) Enable/disable source name transmission |
| (12) Set source names refresh count      |
| (13) Set source names display Id offset  |
| (14) Include non-physical sources with VGPIs and source names |
| (S) Save and Exit                       |
| (X) Exit                                  |
| > |                                        |
|-----|

```

Serial Port 1 Setup

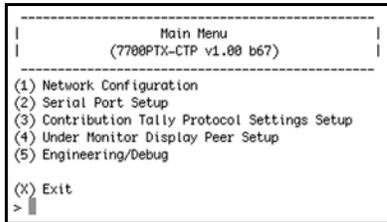
12. For the selected **Serial Port** enter the following parameters.

Parameter	Value
VGPI Image Video Dsp Id	500
VGPI Refresh Count	750
Program Output Number	5
Program VGPI Offset	0
Tx Program UMD	y
Program UMD Dsp Id	129
Preview Output Number	6
Preview VGPI Offset	100
Tx Preview UMD	y
Preview UMD Dsp Id	130
Tx Source Names	y
Src Names Refresh Count	20



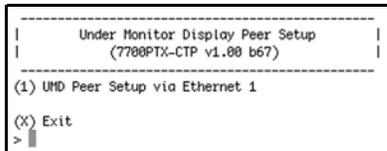
Parameter	Value
Src Names Dsp Id Offset	0
Include Non-Physical Sources with VPGs and Source Names	y

13. Press **(S)** Save and Exit.



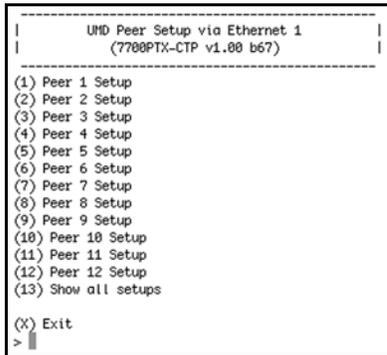
Main Menu

14. From the **Main Menu** of the 7700PTX-CTP, select **(4) Under Monitor Display Peer Setup**. On this menu, we will enter the IP address of the MVP/VIP that the 7700PTX-CTP will be sending data to.



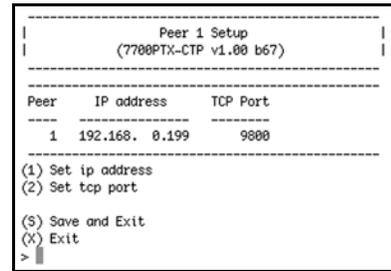
Under Monitor Display Peer Setup

15. Select **(1) UMD Peer Setup via Ethernet 1**.



UMD Peer Setup via Ethernet 1

16. Select the **Peer X Setup** for the MVP/VIP (Peer) that the 7700PTX-CTP is connecting to, where **X** is the number of the peer.

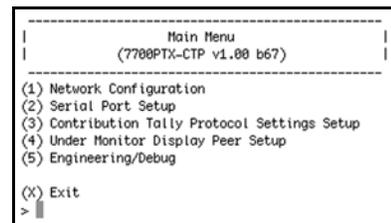


Peer 1 Setup

17. Enter the **IP Address** and **TCP Port** for the MVP/VIP (Peer) that the 7700PTX-CTP is connecting to.

18. Press **(S)** Save and Exit.

19. Repeat **Steps (14.)** to **(18.)** for each MVP/VIP (Peer) that the 7700PTX-CTP is connecting to.



Main Menu

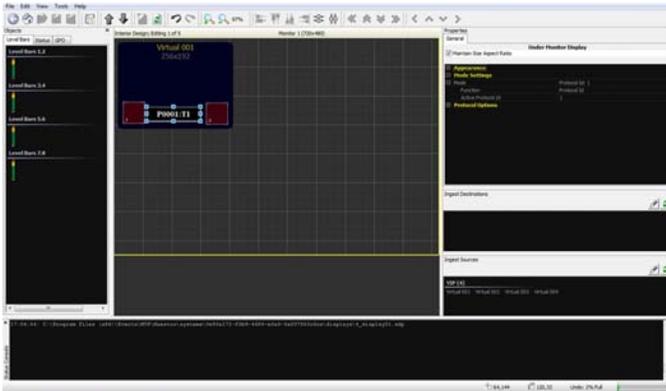
20. Press **(X)** Exit.

21. Restart the 7700PTX-CTP to apply the settings.

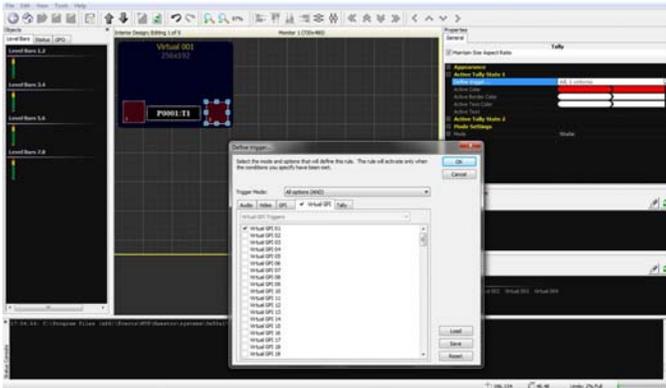
### MVP/VIP Setup

The MVP/VIP Maestro application must be configured so that the UMD Labels and Tally indicators are set for Protocol Id, and the correct PID or VGPI is used. Based on the values set for the Contribution Tally Protocol Settings of the 7700PTX-CTP, select the following parameters.

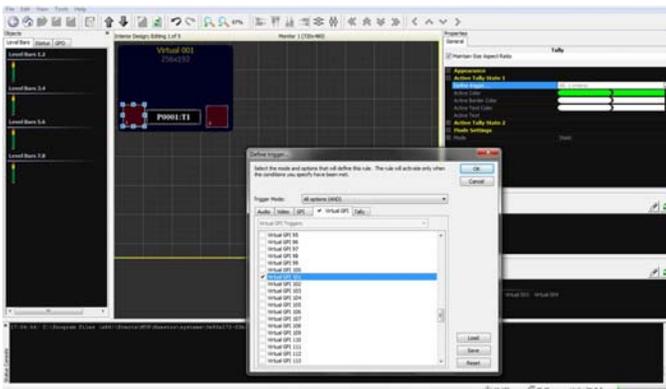
Parameter	Value
UMD PID for Input 1	1
PGM Tally	Virtual GPI 1
PV Tally	Virtual GPI 101
PGM UMD PID	129
PV UMD PID	130



Label Assignment — Maestro



PGM Tally Assignment — Maestro



PV Tally Assignment — Maestro





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