

Introduction

Chapter Objectives

In this chapter we provide you with an overview of the options for communicating with the Color CVIM module. We also describe the types of data that can be accessed or manipulated. The descriptions in this chapter will enable you to determine the type of communications most suitable for your application. You then can proceed to the chapter of this manual that describes the selected option.

How is Data Stored in the Color CVIM Module?

The result and command data that you can access with a host device is stored in an area of Random Access Memory (RAM) inside the Color CVIM module. Configuration data which controls the operating instructions for the Color CVIM module is located in a separate area of memory which can be also be accessed through a host device. Refer to Appendix A for an overview of configuration/results memory. Appendix B, C, and D contain tables listing the information stored in results and configuration memory locations.

How Does the Host Device Read Configuration/Results Information?

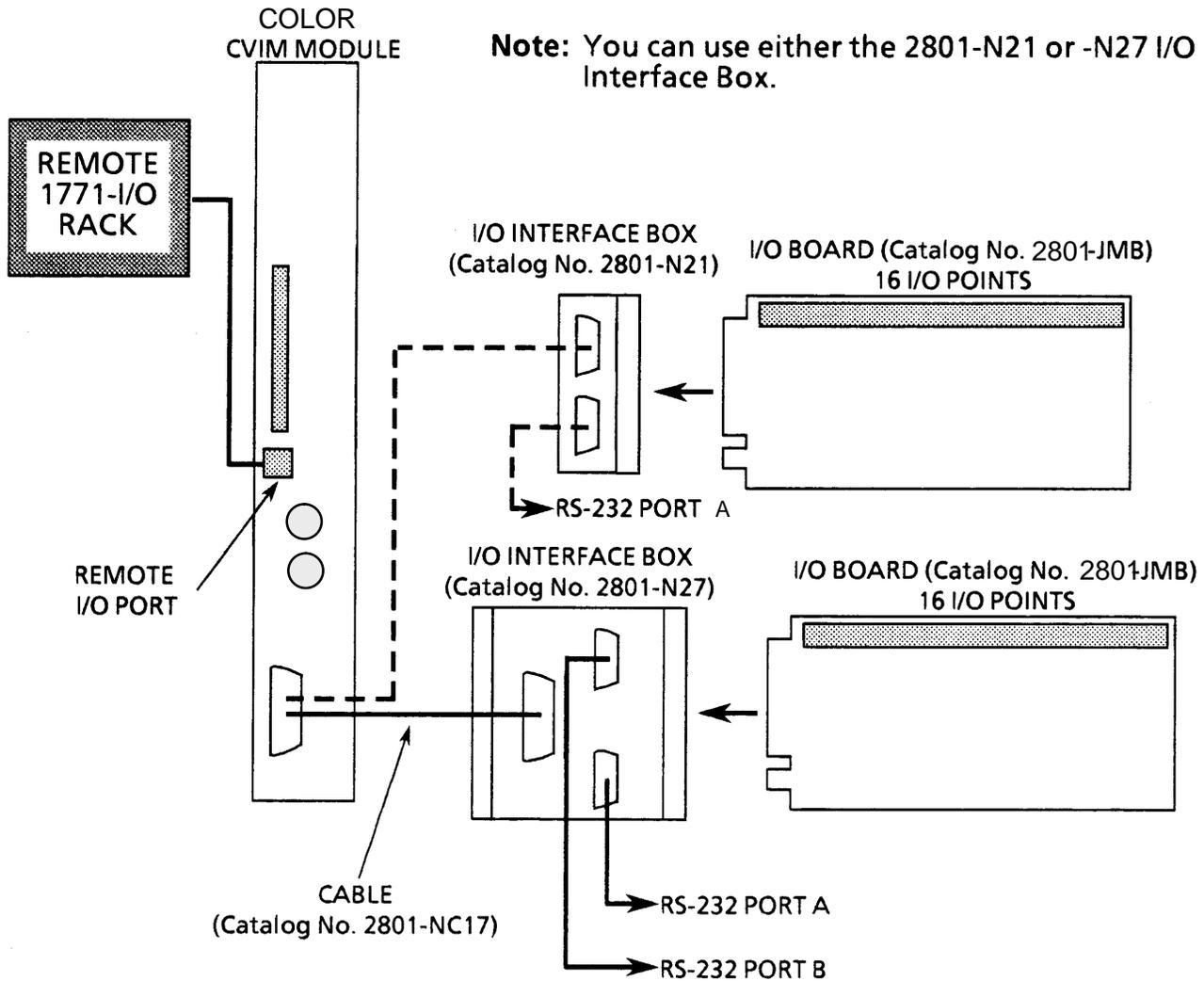
The remainder of this chapter describes the various options you have for accessing this information. Refer to Figure 2.1. In summary, your host device will be linked to the Color CVIM module through one of the following ports:

- Remote I/O (Node Adapter)
- RS-232 Interface(s)
- Pyramid Integrator Backplane
- Local I/O Board

Note: The local I/O board has sixteen discrete I/O lines. Fourteen of these lines are outputs only. One of the remaining lines is for input, and can be connected to a presence-sensing device to trigger an inspection process. The other line is not used.

How Does the Host Device Read Configuration/Results Information? (cont'd)

Figure 2.1
Color CVIM Module Communications Ports



Remote I/O (Node Adapter)

The remote I/O port (RIO) is located on the front of the Color CVIM module as shown in Figure 2.1. Using the remote I/O port, you can connect the following types of devices:

- Allen–Bradley Programmable Controllers (PLC–2, –3, and –5).
- Host Computers which have the Allen–Bradley IBM Bus Scanner (Catalog No. 6008–SI). The 6008–SI bus scanner is compatible with the A–B 6121/22 Industrial Computer, Industrial Terminal (Catalog Nos. 1784– T50, 1784–T35), or other IBM PC/AT compatible devices.

RS–232 Ports

As shown in Figure 2.1, the RS–232 ports are located on the I/O Interface Boxes (Catalog No. 2801–N21, –N27). The I/O Interface Box is connected to the MODULE I/O port on the front of the Color CVIM module. Using the RS–232 interface(s) you can connect a variety of devices which use the RS–232 standard:

- Computers
- Operator Interfaces such as Allen–Bradley Industrial Computers and Terminals with serial ports.
- I/O modules such as the Flexible Interface Module (Catalog No. 2760–RB) or ASCII module (Catalog No. 1771–DA).

Local I/O

As shown in Figure 2.1, the local I/O consists of an I/O Board (Catalog No. 2801–JMB), I/O Interface Box (Catalog No. 2801–N21, –N27), an input and up to 14 output modules as configured by the user. The Catalog No. 2801–NC17 cable connects the I/O interface box to the Color CVIM module.

Pyramid Integrator Backplane

Using the Pyramid Integrator backplane, you can directly communicate data between the Color CVIM module and other devices installed in the Pyramid Integrator chassis:

- Allen–Bradley PLC–5/250
- MicroVAX Information Processor