Intelligent Asynchronous Controller

CAUTION: The information in this pamphlet is to be used to install an Intelligent Asynchronous Controller (Comm A-6) in a Fortune 32:16. If your Fortune 32:16 has FOR:PRO Operating System Release 1.8.1 or earlier, you need the information in Chapter 2 of this pamphlet as a supplement to the information in Chapter 4 of *FOR:PRO Installation Instructions*. If you have a later release of FOR:PRO, the information in Chapter 2 of this pamphlet is superseded by the information in Chapter 4 of your copy of *FOR:PRO Installation Instructions*.

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Consult an authorized Fortune Representative for copies of manuals and technical information.

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CONTENTS

CHAPTER 1
Installation Overview

This pamphlet describes how to install and use an Intelligent Asynchronous Controller. The Intelligent Asynchronous Controller is commonly known as the IAC and also as the Comm A-6.

RELATED DOCUMENTS

To install the IAC, refer to the detailed information in the *Peripheral Controller Installation* pamphlet, the *FOR:PRO Installation Instructions* pamphlet, and this pamphlet. The *Peripheral Controller Installation* pamphlet is packed in the box with the IAC.

RELATED EQUIPMENT

IAC Adapter Kit

If you install an IAC in slot A of a Fortune 32:16, you will need adapters, as described in Chapter 2 of this pamphlet. The IAC Adapter Kit includes all the items needed. If you need an IAC Adapter Kit, order one with the following part number:

IAC Adapter Kit 1003703-02

IAC Cables

As described in Chapter 2 of this document, 9-pin connectors are used on the IAC to provide space for six connectors on the back of a Fortune 32:16. Each IAC cable has a 9-pin connector on one end and a 25-pin connector on the other end. Since standard Fortune Systems cables have 25-pin connectors, you can connect a device to the IAC by first connecting a standard cable to an IAC cable. If you do not have enough IAC cables, use the following part number for ordering:

IAC Cable 1000633-20

CHAPTER 2
Port Numbering

If your Fortune 32:16 has Release 1.8.1 or an earlier version of the FOR:PRO Operating System, keep this document with your copy of *FOR:PRO Installation Instructions*. If your Fortune 32:16 has a version of the FOR:PRO Operating System later than Release 1.8.1, use the port-numbering information in your copy of *FOR:PRO Installation Instructions*.

If an IAC is used on a Fortune 32:16 with FOR:PRO Operating System 1.8.1 or earlier, the port-numbering information in Chapter 4 of *FOR:PRO Installation Instructions* will not be entirely applicable. This is so because an IAC has six ports, unlike a Comm A-4, which has four.

A Fortune 32:16 with more than two IACs will have ports that can be used for nonlogin devices, but not as login ports. A port with a printer is not a login port. A Fortune Systems terminal such as a Fortune Intelligent Station (FIS 1000) or a Fortune 1000 Basic Workstation is connected to a login port. For example, you can insert four IACs in the slots available in the alternate console option (FOR:PRO release 1.8.1), but you could not use all the ports as login ports. Similarly, you can insert three IACs in a Fortune system that does not have the alternate console option, but you could not use all the ports as login ports.

How Ports Can Be Used

If a system has a Character Generator Video Display Controller (CRT Controller) installed in slot A, the keyboard connector and the CRT controller provide a device connection for the console, and the SIO connector is port tty01. This also applies to systems with the alternate console option. If the CRT controller is replaced by a Comm A-4 or an IAC, additional serial asynchronous ports become available for more device connections. If a system with the alternate console option does not have a CRT controller in slot A, the default console at power-up is the FIS 1000 or Fortune 1000 Basic Workstation connected to the SIO port at the back of the CPU.

In FOR:PRO releases 1.8.1 or earlier, a maximum of 17 ports can be configured, using the Define Device Connections selection (S2 39) on the Global menu. Figure 1 shows a Fortune 32:16 with no CRT controller, two IACs, and one Comm A-4. Since the system pictured is using the SIO port for the alternate console, the SIO port cannot be defined with the Define Device Connection selection. Because the alternate console defines tty01 as a login port, only 15 of the remaining 16 ports (tty02 through tty17) can be configured to permit logins. For example, if the console and tty02 through tty16 are configured as terminals, tty17 can be configured as a printer but not as a login port.

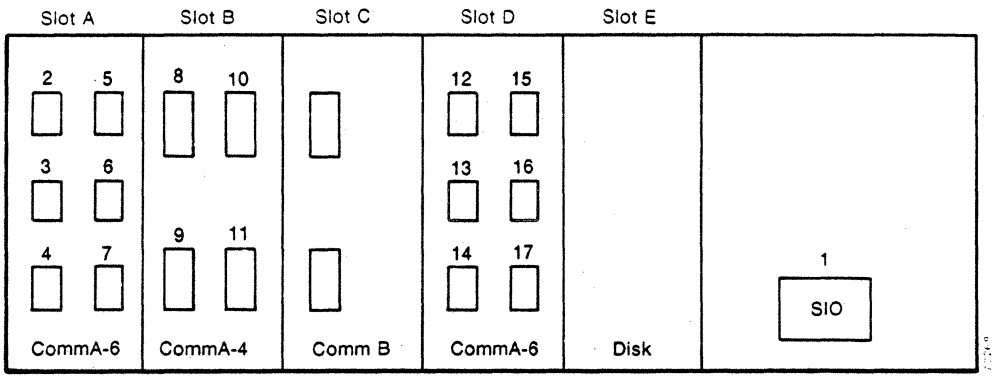

Figure 1. Back View of Fortune 32:16 Alternate Console System

How Ports Are Numbered

Looking at the 32:16 from the back (Figure 1), you number parts from top to bottom and left to right, beginning with port 2 (port 1 is the SIO port). The specific numbers depend on how many Comm A-4 and Comm A-6 controllers are installed and on how many ports each controller has. Regardless of their slot locations, ports on both types of controllers are numbered consecutively, following the pattern defined for the controller (Comm A-4 or Comm A-6).

In Figure 1, the ports on the IAC in slot A are numbered 2 through 7. The ports on the Comm A-4 in slot B are numbered 8 through 11. No port numbers are assigned to the Comm B. The ports on the IAC in slot D are numbered 12 through 17. Note that the intervening Comm B does not affect the numbering sequence.

In general, any controller can be used in any slot. For example, in a system with the alternate console option, slot A need not be occupied by a CRT controller. In some cases, cable lengths and PROM use must be taken into consideration (see Table 1). In an alternate console system that does not have a Monochrome Graphics Coprocessor, it is a good idea to install serial asynchronous controllers from left to right, starting with slot A. In a standard console system, start with slot B. This method simplifies the definition of ports on your system. Figure 2 shows a system with the alternate console option and a Monochrome Graphics Coprocessor in slot A. The console can be connected through the SIO connector, leaving the Monochrome Graphics Coprocessor free of any functions assigned to the console.

> NOTE: You will need an adapter to install an IAC or Comm A-4 in slot A.

For FOR:PRO 1.8.1 and earlier versions of the operating system, the back view of the Fortune 32:16 that is displayed when you select S2 39, Define Device Connections, is shown in Figure 3. This drawing depicts four Comm A-4 controllers in slots B through E, having port numbers 2 through 17. In a system with Comm A-6 controllers, or with a mix of Comm A-4 and Comm A-6 controllers, port numbers will be assigned to different connectors, as shown in Figures 1 and 2.

When you use the Define Device Connections menu to define the characteristics of a port, you should configure each port by its number, even though that port may be in a

different slot in Figure 3 than it is on your system. That is, all ports should be configured by consecutive port numbers regardless of their slot locations.

Table 1. Slot Locations for Controllers

Controller	Slot Location
Character Generator Video Display Controller	Any slot
Monochrome Graphics Coprocessor	Any slot
Serial Asynchronous Controller (Comm A-2)	If no PROMs are installed, only in slot B; otherwise, any slot
Serial Asynchronous Controller (Comm A-4)	If no PROMs are installed, only in slot B
Intelligent Asynchronous Controller (Comm A-6)	Any slot
Intelligent Communications Controller (Comm B)	Any slot
WD-06 Winchester Controller	Any slot, but usually installed in slot E because of the length of the cable
Parallel I/O Streamer Tape Controller	Any slot, but usually installed in slot D because of the length of the cable
Fortune:Link 32:16 ARCnet Controller	Any slot

Using IAC Adapters

For an IAC in slot A, install an adapter for ports 2, 3, and 4 as follows:

1. Insert the adapter with pins installed into the connector for the port (see Figure 4).

2. Thread the standoff into the threaded portion of the connector on the Comm A-6, and tighten the standoff with a 3/16-inch nut driver.

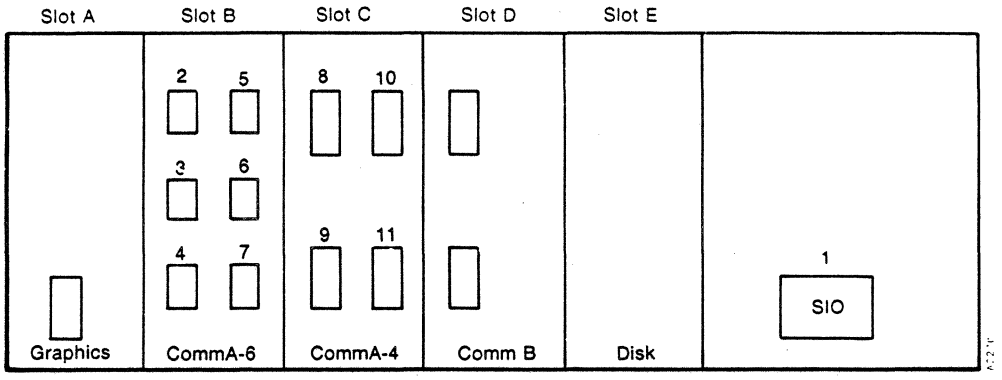

Figure 2. *Back View of Fortune 32:16 with Monochrome Graphics Coprocessor in Place of Character Generator Video Display Controller*

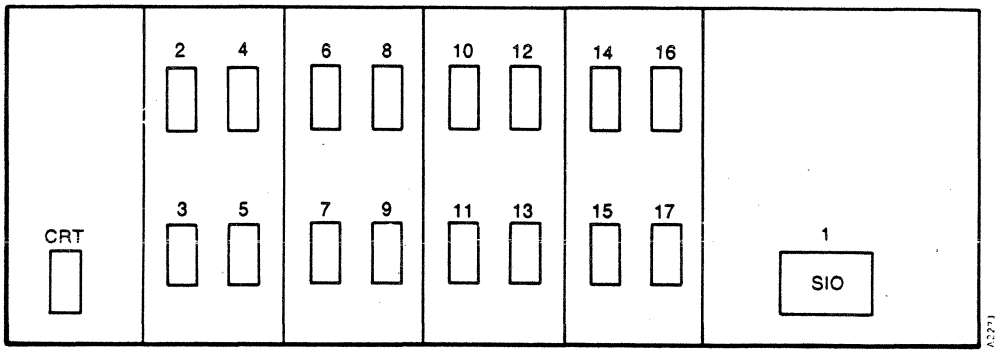

Figure 3. *Screen Display Produced by Define Device Connections Selection S2 39*

Using IAC Cables

The 9-pin connector on the IAC must be connected to the 25-pin connector used in most cables provided with Fortune Systems units. The IAC cable has a 9-pin connector at one end and a 25-pin connector at the other end. The 25-pin connector is wired to be equivalent to a 25-pin connector on a port of a serial asychronous controller (Comm A-2 or Comm A-4). A cable that connects any equipment to a port of a serial asynchronous controller can be connected directly to this cable.

If you wish to make cables that connect the IAC to other units, each cable for such units as a Fortune 32:16, a Fortune 1000 Basic Workstation, or a printer may need different wiring. Consult with an authorized Fortune Representative before you make your own cable.

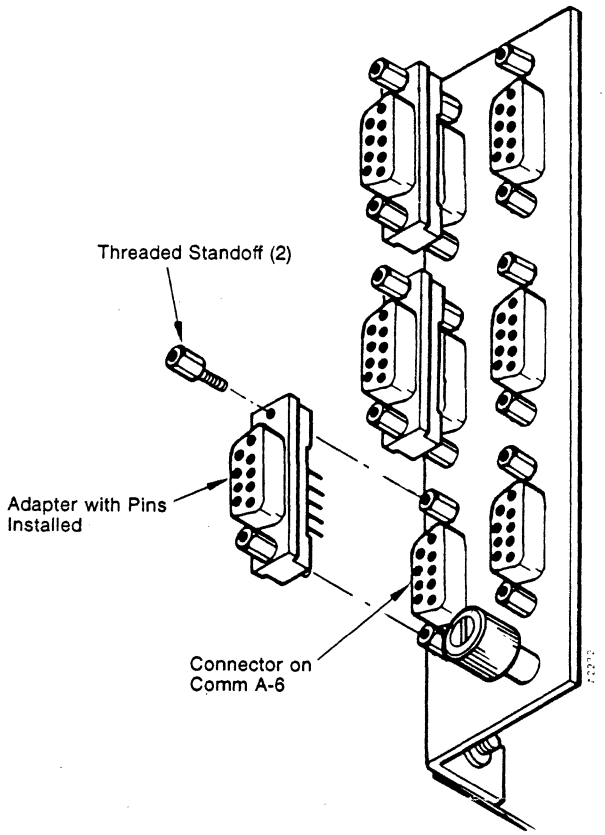

Figure 4. Installation of Adapter