Lucent Technologies

Bell Labs Innovations

Installing and Configuring the Dolphin Fastisa 4022 Serial Port Board

The Dolphin Fastisa 4022 board (hereafter referred to as the 4022 board) is a 16-bit serial expansion board supported for messaging systems using Serial integration. You must perform the following steps to install and configure the 4022 board:
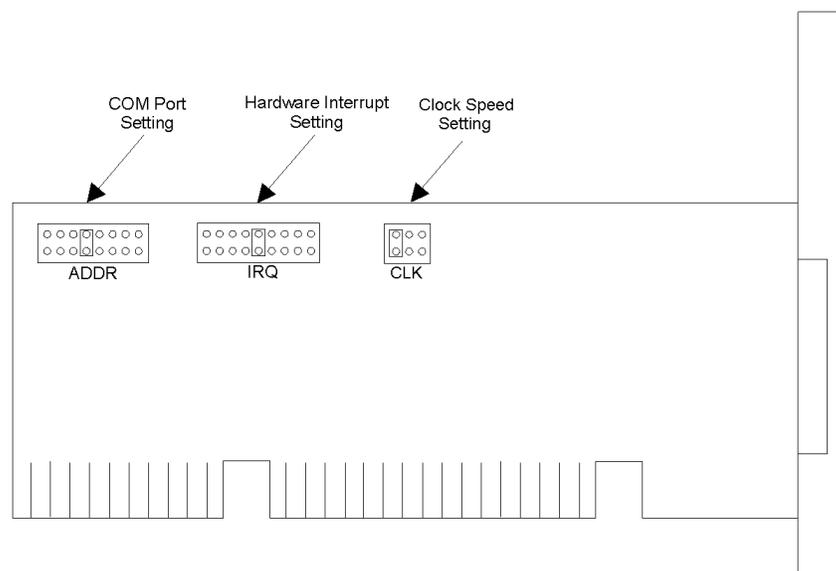
- Set the base address
- Set the hardware interrupt
- Install the card in the messaging system PC
- Connect the 4022 board
- Modify the CONFIG.SYS file

An illustration of the 4022 board, with the relevant jumper blocks labeled, is provided below.

There are three jumper blocks identified in the following illustration. Information on setting the first two jumper blocks, which configure the COM Port setting and the hardware interrupt (IRQ) setting, is provided later in this note. The third jumper block, which configures the clock speed, should be left at the default setting, CLKX1, which is the first jumper on the block.

Chapter 5 of the *Implementation and Service Manual* includes information on a 4-COM serial port board, which is installed in some existing systems. If you are installing a Dolphin Fastisa 4022 board, use this note instead of the information on the 4-COM board provided in the *Implementation and Service Manual*.
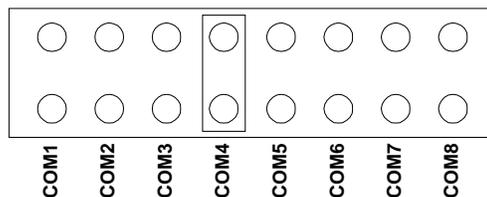
WARNING:	Use caution when handling boards as they are electrostatic-sensitive. Ensure you ground the PC, the work area, and the ground end of the antistatic wrist strap prior to handling a board, and always use antistatic wrist straps and electrostatic-dissipative mats while handling a board.

Setting the Base Address

The base address determines the COM Port used for the 4022 board. The following port addresses are available: 3F8 (COM1), 2F8 (COM2) 3E8 (COM3), 2E8 (COM4), 3F0 (COM5), 3E0 (COM6), 2E0 (COM7), and 260 (COM8). The base address is set on the jumper block labeled ADDR, which is the first jumper block at the top of the board, when holding the board with the bracket to the right and the jumpers facing you. The recommended base address for the 4022 board is 2E8 (COM4). Make sure that the port address you select is not currently being used by another device in the PC.

To set the base address to 2E8, install the jumper cover on the jumper pins labeled COM4, which is the fourth jumper from the left, as shown in the following illustration.
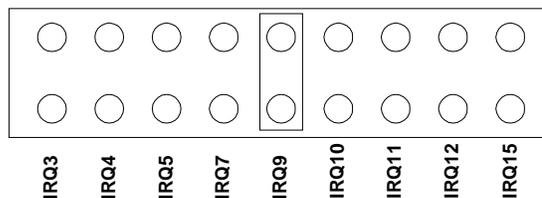
Setting the Hardware Interrupts

The IRQ setting determines the hardware interrupt used for the 4022 board. The 4022 board can be set to one of nine available interrupts (IRQs): IRQ3, IRQ4, IRQ5, IRQ7, IRQ9, IRQ10, IRQ11, IRQ12, and IRQ15. The hardware interrupt is set on the jumper block labeled IRQ, which is the second jumper block at the top of the board, when holding the board with the bracket to the right and the jumpers facing you. The recommended IRQ for the 4022 board is IRQ9.

If setting the 4022 board to IRQ9 causes a conflict with another device, set the hardware interrupt to an available IRQ. If you are not sure what IRQs are available, exit any open applications, shut off power to the PC, remove the cover from the PC, and look at the installed devices to determine their assigned IRQ.

To set the interrupt to IRQ9, install the jumper cover over the jumper pins labeled IRQ9, which is the fifth jumper from the left, as shown in the following illustration.

Installing the 4022 Board in the PC

Once the 4022 board is configured, complete the following procedure to install the 4022 board in the messaging system PC.

To install the 4022 board in the PC:

1. Shut down the messaging system and any open applications and turn off power to the PC if it is running:

    a. If the messaging system is running, log into it as a level 2 or 3 supervisor and shut down the messaging system. For information on logging into the system and shutting it down, refer to Chapter 20, Starting, Logging Into, and Shutting Down the System, in the *Implementation and Service Manual*.

    b. Press <Ctrl-Esc> to open the Window menu.

    c. Highlight any application you see with the exception of the OS/2 desktop or the LaunchPad, if it is displayed on the PC.

    d. Click the right mouse button once on the highlighted application.

    e. Select Close.

    f. Repeat steps d and e for each open application.

    g. Select Shut Down from the LaunchPad. At the prompt to confirm the shutdown, click OK.

    h. When prompted to shut down or reboot, turn off power to the PC.

2. Once the PC is off, follow the instructions in the PC manufacturer's manual to remove the cover.

3. Select a 16-bit expansion slot in which to install the board.

4. Unfasten the screw retaining the slot cover, located at the rear of the PC chassis, and remove the slot cover.

5. Insert the board into the expansion slot by holding the board at the top of each corner. Apply equal pressure to both sides of the board and push down firmly to seat the board. The board should easily slide down most of the way. If you feel any resistance, check the alignment of the board.

6. Make sure that the board's connectors are accessible from the rear of the PC chassis.

7. Secure the board's metal bracket with the retaining screw.

8. Replace the PC's cover, and fasten it back into place with the retaining screws.

Connecting the 4022 Board

Once the 4022 board is configured and installed, connect the device for which you installed the 4022 board to the board's 25-pin connector, visible from the back of the PC.

If the device you are connecting to the 4022 board port requires a 9-pin connector, contact your authorized representative for order information (part number 003-1530-000).

Modifying the CONFIG.SYS File

Complete the following steps to modify the CONFIG.SYS file to properly recognize the 4022 board.

To modify the CONFIG.SYS file:

1. If the messaging system is running, log into it as a level 2 or 3 supervisor and shut down the messaging system. For information on logging into the system and shutting it down, refer to section 20, Starting, Logging Into, and Shutting Down the System, in the *Implementation and Service Manual*.

2. Open an OS/2 window.

3. From the C:\ prompt , type `E CONFIG.SYS` then press <Enter>. An OS/2 editor window displays the current CONFIG.SYS file.

4. Locate the line that begins:

   `DEVICE=C:\OS2\BOOT\COM.SYS`

5. Move the cursor to the end of the line.

6. Add a space and then the identify the COM port number, base address, and hardware interrupt of the 4022 board. The following example shows the recommended settings, where `4` represents the COM port number, `02E8` represents the base address, and `9` represents the hardware interrupt:

   `(4,02E8,9)`

   The edited line should read:

   `DEVICE=C:\OS2\BOOT\COM.SYS (4,02E8,9)`

   If you are using different port numbers, port addresses, or interrupts, substitute the appropriate settings.

7. Select Save from the File menu.

8. If this is the first time you have saved the file, the Save Notification dialog box displays.

9. Click Type. The Type dialog box displays.

10. Click Plain Text, then click Set. The file is saved.

11. Double-click the icon in the upper-left corner of the window to close the editor.