SRAM Backup and Restore

This document describes the function of the SRAM and the basic procedures required to back up and restore this information on the GE Fanuc 180*i*-PA control.

➢ What is the SRAM?

The SRAM is non-volatile, battery backed, memory module which contains vital user information including part programs, tool offsets, and CNC parameters. Unlike system software (CNC executive, macro executor, ladder sequence program), the SRAM contents will naturally differ from machine to machine. Therefore, it is critical that a backup image of this data is securely kept in the event that the SRAM is lost of corrupted. Test

> Regardless of the type of maintenance work being done, an SRAM backup should be the first procedure when servicing a machine. This will allow you to restore the machine to its original software state should something go wrong.
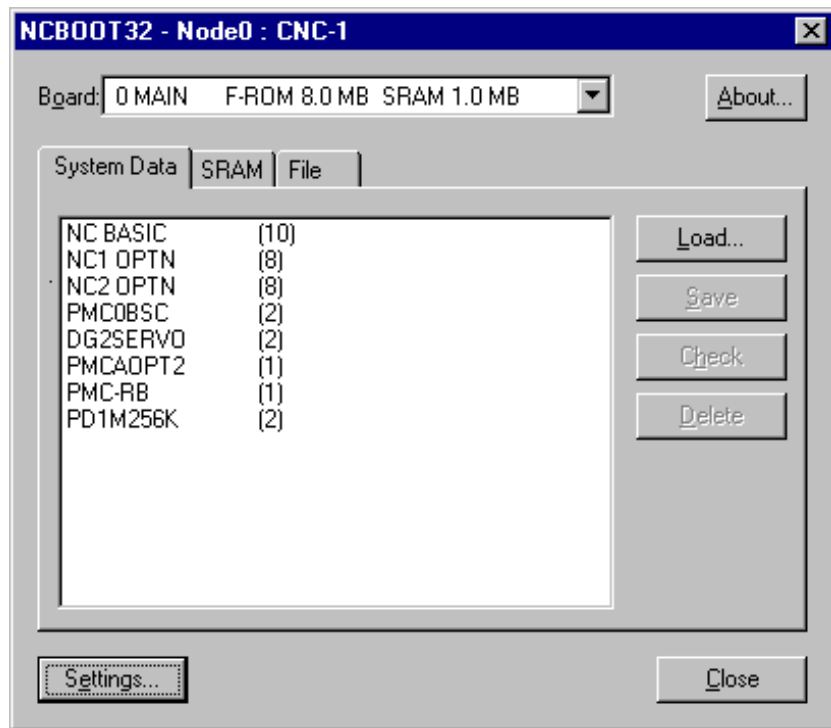
Backup and Restore

➢ SRAM Backup

The following procedure details the steps to back up an image of your SRAM.

1. ***Make sure the power to the control is turned off***. Locate the small blue cube with a white dial on the bottom left of the control unit when viewing from the back. The dial should be set to "1". Take a small screwdriver and turn the dial until it clicks into the "0" position.

> Setting the dip switch to the "0" position alters the boot setting to maintenance mode. The CNC will start to power up and then wait until the PC launches the NCBOOT32 driver before resuming with the CNC boot sequence.
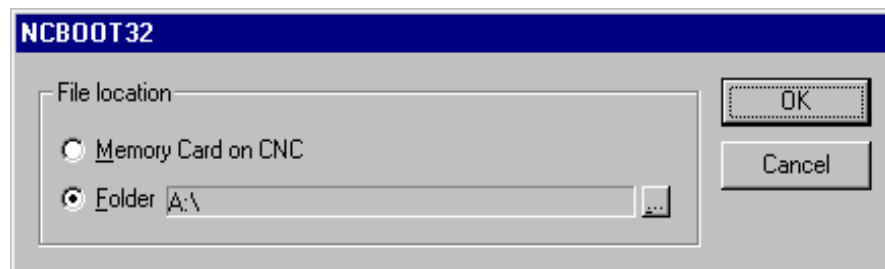
2. Turn system power on from the operator panel. After Windows NT completes its boot up process (approx. 1 minute), the following window will appear on your screen.
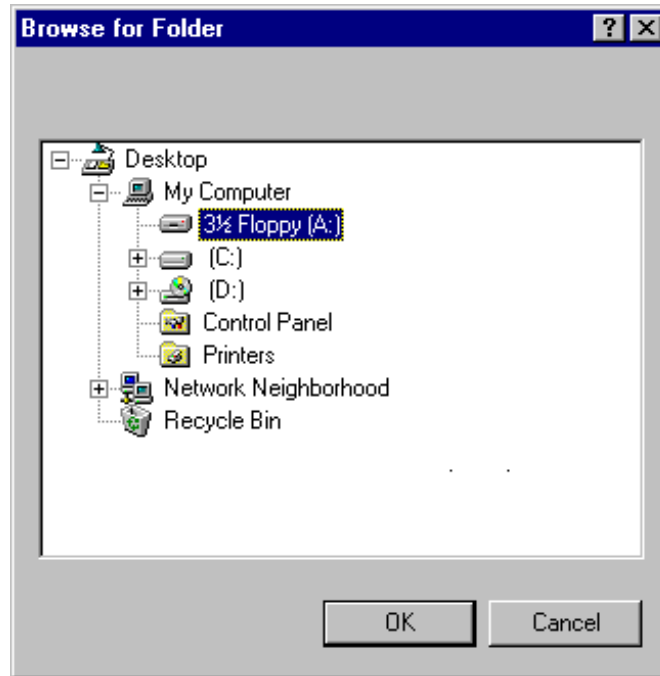
```
NCBOOT32 - Node0 : CNC-1                                    [X]

  Board: 0 MAIN    F-ROM 8.0 MB  SRAM 1.0 MB    [v]      About...

   System Data | SRAM | File |

    NC BASIC       (10)                            Load...
    NC1 OPTN       (8)
    NC2 OPTN       (8)                             Save
    PMC0BSC        (2)
    DG2SERVO       (2)                             Check
    PMCAOPT2       (1)
    PMC-RB         (1)                             Delete
    PD1M256K       (2)




   Settings...                                     Close
```

3. Select the **SRAM** <u>tab</u> from the folder tab options. This will take you to the SRAM backup and restore screen.

```
SRAM
```
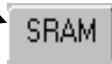
4. You must select the path of the storage location in which you would like to create the SRAM image. Click on the **Settings** button at the bottom left of the window and you will be prompted for the path. If it is correct, select **OK.**

```
NCBOOT32

  File location                                    OK

   O Memory Card on CNC                            Cancel

   (•) Folder  A:\                          [...]
```

5. If the path is incorrect, click on the browse button (the small square button with three dots) and the following window will pop up. From this Windows Explorer-like box, select the proper folder/drive in which the SRAM image should be stored. Hit **OK** when done.

Browse for Folder

- Desktop
  - My Computer
    - 3½ Floppy (A:)
    - (C:)
    - (D:)
    - Control Panel
    - Printers
  - Network Neighborhood
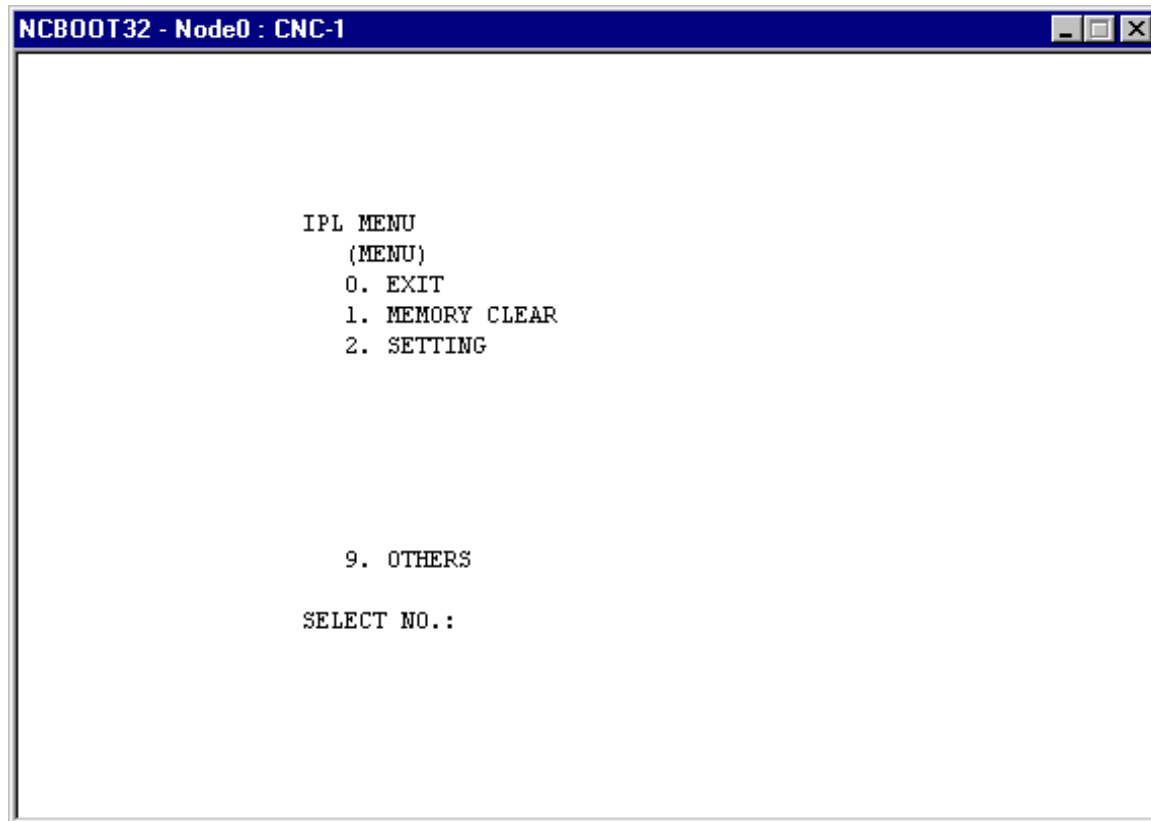 - Recycle Bin

OK   Cancel

6. After you have selected the path and hit **OK**, click on the **Backup** button on window and the CNC will begin backing up the SRAM data into the storage location you specified. When complete, you should see the following window. At the data path you specified, there will be two SRAM image files newly created, entitled **SRAM1_0A.FDB** and **SRAM1_0B.FDB**.

Important Note: On the first 11 1st generation 1500H/30 machines, only one SRAM image file will be created. This file will be named **SRAM0_5A.FDB**.
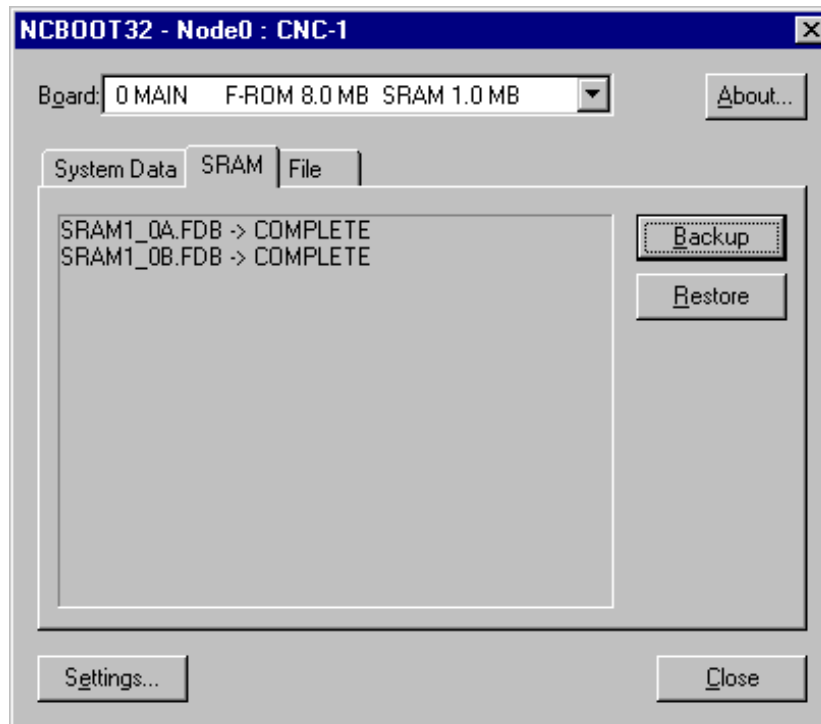
7. Hit the **Close** button on the bottom right of the window. This will get you to the following screen.

```
NCBOOT32 - Node0 : CNC-1                                    _ □ ✕




                 IPL MENU
                     (MENU)
                     0. EXIT
                     1. MEMORY CLEAR
                     2. SETTING




                     9. OTHERS

                 SELECT NO.:


```

8. From the MDI panel, type [0] followed by [INPUT] to exit the IPL MENU screen. You will be prompted if "you are sure".

9. Type [1] followed by [INPUT] and the CNC Screen Display Function application will automatically be launched by NCBOOT32.

10. Before continuing, you should return the boot setting back to the standard mode. To do this, *make sure you first turn off the power to the control*. Return the dial setting on the dip switch back to the "1" position.

➢ SRAM Restore

> The SRAM restore sequence is identical to the backup sequence except for the following minor items.

♦ In **step 4**, you should click on the **Settings** button to make sure that the path specified points to the location of the backed up SRAM image. If not, the control will try to look for the files and generate an error.

♦ In **step 5**, select the **Restore** button.