# TB199 (Rev2) - How to Create a Linux Flash Card for CNC10/CNC11 Systems

## Purpose:

This document was created to help guide you in the process to build a Linux flash card on your own. If you are unsuccessful in building your own Linux FC, they can be purchased pre-installed from Centroid.

### **Recommended FC:**

Sandisk Extreme III 2Gb or 4Gb

### Procedure:

Locate your Centroid Software Install CD or download ISO image from Centroid Dealer support site. With a CD burning software select the "burn from image" option to create your bootable Linux CD.
Build or purchase a computer with these minimum requirements:

800MHz Pentium III class CPU 256MB RAM CD-ROM Drive XVGA Display Adaptor IDE Hard Drive or Compact Flash Card/Reader PS/2 Mouse

3. Configure your motherboard for the CD-ROM to be the first boot device. You can do this by pressing the **delete** key at the first page during PC bootup to enter your PC's Bios settings. Once in the Bios Settings the boot sequence is typically found under Advanced Bios Features, set 1st boot device to CDROM and 2nd boot device to HDD-0 then save and exit.

Note: CD-ROM and Flash card device can not be connected on the same IDE cable.

- 4. Insert flash card before power up.
- 5. Insert the CD, power up and wait for the CNC10/CNC11 installation menu.
- 6. Select "install CNC Linux".
- 7. Configurations for installation. Press tab key to move between different fields.

i. "Select flash card Device" – Ex, "hda" if you have it on first connector of IDE1. "hdc" if you have it on the first connector of IDE2.

*Note:* If you don't know which option to select press **Alt+F6** to bring up a Linux prompt. Type: **fdisk -I** and press **enter**. This will display all the devices (i.e. HDD) connected to the PC so you can see which label was assigned to your device.

ii. "Choose machine type" - Mill or Lathe.

iii. "Select PLC program" – Usually "none" is the best option and installs the custom PLC later. Select a program from the list if the list has the PLC you desired.

iv. Select AC or DC drive (CNC10 software only).

Figure 1, Installation menu

| Install CNC Linux on Flash Card |  | _ <b>-</b> ×            |  |
|---------------------------------|--|-------------------------|--|
|                                 | PLC Program  |                         |  |
| Flash Card Device               | Directory  | Description 🛛           |  |
| Select flash card device        | maakn-dcaro  | PLC Program for M38 MIG |  |
|                                 | t400-dc3io   | T400 DC3IO Uniconsole   |  |
| - Install Cnc10                 | t39b-dc3io   | T39 DC3IO REV B PENDAN  |  |
| ♦ Mill                          | armatc-rtk3  | Arm-type ATC with RTK3  |  |
| 🕹 Lathe                         | atc2-rtk3  | ATC2 (RTK3-based ATC) S |  |
| 🕹 Demo Console                  | atc2-dc3io   | ATC2 (DC3IO-based ATC)  |  |
|                                 | arm2-rtk3  | ARM2 Arm-type ATC with  |  |
| -                               | uatc6ac  | *** Missing README.PLC  |  |
| Drive type                      | atropu   | Custom PLC for Erie Bea |  |
| DC Brushed (cnc8.hex)           | aycopu   | C axis Ann Yang lathe v |  |
|                                 | DM45   | *** Missing README.PLC  |  |
|                                 | emi659   | M400 DC3IO Uniconsole   |  |
|                                 | gundrill   | Custom PLC for K10223   |  |
|                                 | hazohaan   | Hand Indexon Uni Donday |  |
|                                 |  |                         |  |
|                                 | /cncroot/c/soft_eng/plcprograms/atc2-rtk3/README.PLC |                         |  |
| Exit                            | ATC2 (RTK3-based ATC) SEP-2004                       |                         |  |
|                                 | Most current ATC program for umbrella type           |                         |  |
|                                 | tool changers  |                         |  |
|                                 | with RTK3 pic, Use for all v1,15+ umbrella           |                         |  |
|                                 | L PARTY  |                         |  |

8. Press "Install" to install the Centroid CNC10/CNC11 software.

9. If you see "unable to Format hda (hdb, hdc, etc...)" message, figure 2. Repeat step 5 to step 7 with a different flash card device drive letter, and.

Figure 2, Unable to format.

| InstallForm   | . 🗖 🗙 |  |  |
|---|-------|--|--|
| Creating filesystem on /dev/hdh1  |       |  |  |
| mke2fs 1.23, 15-Aug-2001 for EXT2 FS 0.5b, 95/08/09                         |       |  |  |
| mke2ts: No such device or address while trying to determine filesystem size |       |  |  |
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|   |       |  |  |
| Unable to format hdh  |       |  |  |
| Class   |       |  |  |
|   |       |  |  |

#### **Document History**

Rev2 Created on 2009-09-09 by #240 Rev1 Created on 2009-05-14 by #240