Synopsis

This document describes the procedure for preparing complact flash cards for MMC Sidearm and Intrinsyc CerfCube.

There are different versions of the ext2 file system, some of which may not work correctly with fsck. The file system version installed on the CF disk depends on the linux distribution used to perform this procedure. The preferred method is to use MMC hardware instead of a PC for this procedure (***cfdev*** is /dev/hda), if mkfs.ext2 and fdisk are installed on the MMC hardware. Otherwise, after preparing the disk, install it on MMC hardware and verify that fsck functions correctly with the file system version installed (watch the boot messages and check /var/log/messages for results).

Required Materials

- PC
    - Linux OS
    - USB or pcmcia port
- Compact flash adapter (pcmcia or USB)
- Compact flash disk

Procedure

- Install the compact flash card adapter
- Open a console on the laptop
- Use tail to monitor /var/log/messages
  tail –f /var/log messages

- Insert the compact flash into the compact flash adapter and note the output of the tail on /var/log/messages. It should indicate that hardware device has been assigned to the compact flash card (e.g., /dev/hdb, /dev/sda, etc.). This shall be referred to as ***cfdev***.

Warning: The next operation destroys all information on the disk; Make sure there is nothing on it that needs to be saved before proceeding

- Use the interactive fdisk command to configure the partition table for ***cfdev***, where ***cfdev*** is the compact flash device (/dev/sda, etc., see above):
    - Start fdisk using
      *fdisk **cfdev***
    - Use the m command to see a list of valid commands
    - Use the q command to quit without saving changes
    - Use the p command to print the current partition table
    - Use the d command to delete all existing partitions
    - Use the n command to create a new primary Linux partition
        - Create a primary partition

    - Accept defaults for start, end, block size, etc. to use the entire extents of the disk
  - Use the p command again to verify that the partition table has been correctly configured
  - Use the w command to write the changes to the disk partition table and exit fdisk

- Create an ext2 file system on the compact flash disk with the command

  *mkfs.ext2 /dev/**cfdev**1*
  where ***cfdev***1 refers to the first partition on the device associated with the compact flash.

- Mount the compact flash disk on a directory (e.g., /mnt/cfdisk)

  *mount **cfdev**1 /dir/of/your/choice*

- Write, read and erase a file on the mounted compact flash disk to ensure that the new file system operates correctly