



Now, what's tomorrow's challenge?

APN-007 Rev 1

July 20, 1997

TECHNICAL BULLETIN

Use of PCMCIA memory cards with the DAP

FLASH versus SRAM memory:

There are two general types of PCMCIA cards available: FLASH and SRAM. Following are some characteristics of each.

FLASH: High memory capacity (up to 50+ Mb).
Relatively low cost per Mb.
Read and write speeds are slow and decrease over time.
High power requirement for read/write operations.
Maximum read/write cycles < 200,000 times.

SRAM: Very fast read/write capability.
Low power requirement.
Requires an internal battery to maintain data integrity.
Capacity currently limited from 6 to 8 Mb.
Unlimited read/write cycles.

Because of the relatively slow read/write times and high power requirement of the FLASH memory cards, we recommend against using them for data collection.

Setting up the DAP for SRAM memory:

DAP has only two general requirements of SRAM PCMCIA cards:

1. They must be Type I or Type II (refers to the thickness of the card),
2. They must be PCMCIA release 2.0 – NOT 2.1 or above.

To set up the DAP to handle an appropriate SRAM card, a device driver must be installed. There is a convenient batch file available inside the PCMCIA directory of the DAP companion disk that will load the appropriate drivers as well as a CONFIG.SYS file. The following instructions should be followed:

1. Connect the DAP to a PC and enter the COM program from the C drive.
2. Reset the COM parameters on the DAP for COM port 2 and a baud rate of 19200.
3. From the PCMCIA directory on the PC, type “install /x” where x is the PC serial port number (1 or 2).
4. After the transfer is complete, the DAP must be re-booted to load the drivers.
5. The PCMCIA card will be recognized as drive D. The DAP can be configured to log data to this drive as per the instructions in the OutRider manual.

Please note that while using a PCMCIA memory card, all file transfers should be done at a baud rate no greater than 19200. Also, if the PCMCIA card is an ATA series card, the device drivers will have to be custom installed and set for auto-configuration. These instructions are spelled out in the DAP Technical Guide and are quite complicated. For this reason, it would be wise to avoid selecting an ATA series card.

Where to get a PCMCIA card:

These types of cards are widely available at most electronic stores. Again there are a few requirements to keep in mind:

1. Select SRAM over FLASH type memory,
2. Avoid an ATA series card if possible,
3. Only Type I or II are supported,
4. PCMCIA release 2.0 or below are supported.

Most manufacturers' cards differ only slightly in characteristics such as current draw and power requirement. As a result, as long as the card meets the above specifications, it should work fine. DAP has had the most experience with Centennial PCMCIA cards, and therefore recommends them. Memory capacity varies between 128Kb and 4Mb. Typical price in Canada is between Cnd\$125 and Cnd\$200. For more information on this particular brand, the Centennial website is www.cent-tech.com.