What is a memory card?

A memory card is a piece of hardware that uses non-volatile memory to store information on itself. Memory cards are used in all sorts of devices, such as:

- computers
- network devices
- digital cameras
- PDAs
- cellphones

We get all sorts of memory cards as donations, sometimes inside of devices. Some of the more common types of memory cards we receive are:

- Secure Digital (SD)
- MiniSD
- MicroSD
- CompactFlash (CF) I, II
- MemoryStick (MS), Pro, Duo
- MultiMediaCard (MMC)
- xD-Picture Card
- SmartMedia (SM)

These cards use all sorts of different slots for connecting to a device; there is no one universal slot. Fortunately many card readers can accept multiple types of cards, so that makes plugging these cards into systems a little easier.

Wiping a memory card

Why?

Memory cards, like HDDs, can have all sorts of personal information stored on them, so we need to treat them like HDDs when it comes to data destruction.

How?

We can wipe all these memory cards similarly to the way we process HDDs. To erase memory cards, you will need:

- a system running Ubuntu
- a USB multi-card reader (for using with multiple types of cards) or two

To prepare a system for erasing memory cards:

1. Plug the card reader into system
2. Open up a terminal

To erase a memory card:

1. Insert a memory card into the card reader

- A window may open up automatically when a card is inserted into the reader. Go ahead and close the window that pops up.
2. Unmount the memory card - **sudo umount /media/***
3. Identify where card is listed in /dev - **dmesg|tail** or **dmesg|grep sd*** in a terminal
4. Start badblocks - **sudo badblocks -wvvf -c1024 /dev/sd***[whatever this letter is in dmesg]*
5. Wait until badblocks finishes
    - If a card reports errors, remove it and hit it with the hammer ONCE (it doesn't take much force, so don't pretend you're Thor) and put it in the ***recycled memory cards*** bucket
    - If a card finishes with no errors, remove the card from the reader, label the memory card (write OK on the card with a sharpie), and store it in TARDIS

Things to be aware of

- The more memory cards you have connected to a system, the trickier it gets to tell them apart in **dmesg**
- The more memory cards you have connected to a system, the longer it'll take to test and wipe them concurrently
- You may need to wait for all cards in a card reader to finish testing and wiping before you can add cards to other card slots