In some investigations cracking the password for an encrypted volume can be a major breakthrough; however there are some cases where associating a password with a particular user can be even more significant by showing their culpability in the matter under investigation.

This has happened in two particularly difficult investigations -
One was where the user denied downloading child pornography on a multi-user computer at home. The images were stored in zip files which were password protected. Just prior to the trial the passwords were cracked, one was readily identified as his employee number at his workplace, the second was an eight digit number. Careful scrutiny of his employer's pay records showed that his salary had been paid into an account with that number ten years previously. These passwords were so personal that they eliminated anyone else and consequently the suspect admitted guilt at court.

The second, in 2002, was a Landslide (or UK Op Ore) case where the suspect denied guilt and claimed his credit card had been compromised and used to pay for downloading child pornography. The password used on the Landslide site was mpitmvc. The suspect was an ex police officer and enquiries revealed that in the mid 1980's he had been part of a small team in a city centre. The team patrolled a large shopping centre called the Victoria Centre and had various RV points which they would refer to over the radio using acronyms. One such RV was the mushy peas and whelk stall in the indoor market area of the Victoria Centre i.e. mushy peas in the market victoria centre. So a password that was a phrase used by just a handful of people more than 15 years previous was a significant factor leading to another guilty plea.

So, if you have an investigation where identifying the meaning or origin of a password is key, here is a list of some of the things that people use for passwords that might assist you in working out how the password was formed.

## Numeric

telephone numbers
wages/pay code
account number bank, credit card, etc
dates of birth
bus numbers
train numbers

## Alphabetic

Family, friends names
pets names
birth dates in text - ninthjune
first letters birth date - five twelve nineteen fifty three $=$ FTNFT
car models
vegetables
fruit
fantasy characters
pop groups
famous people
sports stars
hostname of computer
significant place names
first letters of a phrase, saying, line of a song, poetry, etc
airports used for journeys e.g. LHRLAX (London Heathrow - Los Angeles)

## AlphaNumeric

Alphabetic as above but with various letters replaced with numbers zero for letter $\mathrm{O}, 3$ for E, etc
Post or Zip codes with house numbers or names
Car registrations current and old vehicles
Car models, or models of any other vehicle of interest to the user
Ex-forces service number
Own initials with birth date
Name and phone number (or parts of both)
Routes for journeys by road e.g. a23M23a23 (Brighton to Croydon)

## AlphaNumeric \& Extended

Some of the above but with the characters typed with the shift key depressed, e.g. a house number and post code
148NG41QA $=$ ! $\$ * \mathrm{NG} \$$ !QA

## Thanks

Credit goes to the members of DD for their contributions.

