

Commercial Data Processing

What is the purpose of a CHECK DIGIT?

To make sure that data has been entered correctly, e.g. by bar code.

How does a check digit work?

- A calculation using previous digits in data is performed by computer.
- If result does not match check digit an error is highlighted, and the data is re-input.

Which input methods are likely to use a check digit?

Last digit of a bar code is likely to be a check digit.

What else is likely to be stored on a BAR CODE?

- Stock number of item (not the same as the number in stock).
- Manufacture's name.

What is likely to be held on the main computer and NOT on the BAR CODE?

- Price of item.
- Stock level.

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What are the advantages of using BAR CODES, MARK SENSE CARDS, or Magnetic Ink Character Recognition (MICR) for input?

- Quicker to input.
- Less likelihood of input error (responsibility is taken away from human operator).

What further advantage does MICR have?

Can't be forged or photocopied.

How is loss of data covered in a CDP system?

- Backups are kept.
- More than one generation of backup is typically kept.
- This could be helpful if, for example, an organisation's computers were destroyed in a fire, then their backups would also be destroyed unless there is more than one backup version which is stored remotely from all other files.

Why do companies wish to buy lists of customers held by mail order companies?

- To send them junk mail.
- They know that these people have shown a willingness to use mail order.

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What is INTERACTIVE PROCESSING?

- Where data is processed as the transaction is entered.
- Decisions taken by the computer depend on user input, and are acted upon immediately.
- Required where computer system must show situation as accurately as possible, e.g. when booking plane flights or withdrawing money from a bank machine.

What advantages are there to interactive processing?

- Accurate stock levels are known - operators know exactly when more stock levels should be ordered.
- Patterns can quickly be observed, such as busy times in a shop when more staff may be required.

Why are customers given reference numbers in CDP systems?

- To uniquely identify them - someone else may have exactly the same name but they can't have the same reference number.
- Provides a level of security if data is being entered online - e.g. ordering goods on the internet.

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What do the following do in a CDP system?

Systems Analyst

Responsible for the design, development and upgrading of computer system.

Computer Operator

Responsible for the day to day running of the system - loading files, running programs etc.

Computer Programmer

Writes programs and buys programs used on the system, going on systems analysts specifications.

Computer Engineer

Responsible for fixing hardware problems and general maintenance of the computer systems.

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What advantages to CUSTOMERS are there of a company using a computerised CDP system?

- They know for certain if goods are in stock and when they will receive them.
- Less time is spent waiting in queues through features such as bar code readers.

What advantages to COMPANIES are there of a company using a computerised CDP system?

- Less manual counting of stock, meaning staff can be employed for other purposes.
- Increased customer satisfaction should improve sales.
- Less mistakes made in things such as counting stock.
- Easy to see which items are selling poorly and should perhaps be put on sale or discontinued.

How do companies prevent unauthorised access to files?

- Assign passwords so that only certain users can access certain files.
- Put a physical lock on room where data is entered, which can only be accessed by relevant staff.

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What type of backing storage should be used in a CDP system and why?

Hard disc.

- If a customer phones about an order they will want to quickly know what is happening with it.
- As hard disc is a fast, random access device with masses of storage space for all customers this will do the job perfectly.

Would MAGNETIC TAPE ever be used?

- Perhaps, but only as a back up which would hopefully never be needed, and would probably be stored off-site.
- As a back-up because it is very cheap and has masses of storage space.
- The drawback of tape is that it is a very slow, sequential access device.

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What does EFT (or EFTPOS) stand for?

Electronic Fund Transfer (at Point Of Sale).

How does EFT work?

- Shop assistant passes customer's debit card through a card reader.
- Terminal checks that the card has not been marked as lost or stolen.
- If total amount on bill is below a set limit the computer authorises the transaction.
- If above the limit, the terminal dials the bank's computer to get automatic authorisation for the transaction.

What advantages are there to the company of EFTPOS?

- Less money kept in shop, in case of robbery.
- Orders are processed quicker than cheques (typically one day instead of three).

What advantages are there to the customer of EFTPOS?

- Don't need to carry so much money on them.
- It is convenient if they want to make a spur of the moment purchase.
- Itemised bills show exactly what has been bought and what prices have been charged, making it easier to track any mistakes.