

Arh hardware and software

Input devices

Mouse

A mouse is a small device that a computer user pushes across a desk surface in order to point to a place on a display screen and to select one or more actions to take from that position. The mouse first became a widely-used computer tool when Apple Computer made it a standard part of the Apple Macintosh. Today, the mouse is an integral part of the graphical user interface (GUI) of any personal computer. The mouse apparently got its name by being about the same size and colour as a toy mouse.

A mouse consists of a metal or plastic housing or casing, a ball that sticks out of the bottom of the casing and is rolled on a flat surface, one or more buttons on the top of the casing, and a cable that connects the mouse to the computer. As the ball is moved over the surface in any direction, a sensor sends impulses to the computer that causes a mouse-responsive program to reposition a visible indicator (called a *cursor*) on the display screen. The positioning is relative to some variable starting place. Viewing the cursor's present position, the user readjusts the position by moving the mouse.

The most conventional kind of mouse has two buttons on top: the left one is used most frequently. In the Windows operating systems, it lets the user click once to send a "Select" indication that provides the user with feedback that a particular position has been selected for further action. The next click on a selected position or two quick clicks on it causes a particular action to take place on the selected object. For example, in Windows operating systems, it causes a program associated with that object to be started. The second button, on the right, usually provides some less-frequently needed capability. For example, when viewing a Web page, you can click on an image to get a popup menu that, among other things, lets you save the image on your hard disk. Some mouse's have a third button for additional capabilities. Some mouse manufacturers also provide a version for left-handed people.

Windows 95 and other operating systems let the user adjust the sensitivity of the mouse, including how fast it moves across the screen, and the amount of time that must elapse within a "double click.". In some systems, the user can also choose among several different cursor appearances. Some people use a mouse pad to improve traction for the mouse ball.

Although the mouse has become a familiar part of the personal computer, its design continues to evolve and there continue to be other approaches to pointing or positioning on a display. Notebook computers include built -in mouse devices that let you control the cursor by rolling your finger over a built -in trackball. IBM's Scroll Point mouse adds a small "stick" between two mouse buttons that lets you scroll a Web page or other content up or down and right or left. Users of graphic design and CAD applications can use a stylus and a specially-sensitive pad to draw as well as move the cursor. Other display screen-positioning ideas include a video camera that tracks the user's eye movement and places the cursor accordingly.

Advantages

- A mouse has 2 buttons and sometimes a scroll wheel which makes it easy to scroll through data.
- Easy to use.
- A mouse is very cheap.

Disadvantages

- You need a mouse mat to use the mouse on.
- Mice with a ball at the bottom get clogged up with dirt and become unusable.
- A touch screen is better but it costs a lot.

Keyboard

A key board is used for text with word processing etc. on a keyboard there are many different keys for instance the F keys. These keys are used for shortcuts to anything like in games or other programmes. Some keyboards also have hotkeys which are similar to F keys but they have a set shortcut. Hotkeys normally put the computer in sleep mode or start up the internet. The keyboard also has numbers on it for numeric input which comes in useful when using the calculator on the computer. You can use the windows key on the keyboard for quick access to the start menu which comes in useful.

Advantages

- Keyboards are cheap
- Quick access to the start
- Shortcuts save a lot time
- Fast and easy text input

Disadvantages

- Too many unnecessary keys
- Keys can get stuck

These input devices help a lot. The business could not function without these input devices. They help a lot when they use auto cad and other drawing programs.

A touch screen would be required without a mouse. Without a keyboard the only alternative would be to use a virtual keyboard but this would slow down the business a lot.

OUTPUT DEVICES

AO Potter

Arh uses a printing device called an AO plotter. Arh wouldn't be able to function without a printing device. Without the AO plotter all the drawing done with auto cad wouldn't be able to be printed. The drawings have no use if no one can see them. The customer would like to see the drawings before they go ahead with whatever plans have been made.

The only other way to produce the drawings would be to produce the pictures straight onto paper but this would take a lot of time and would be difficult to produce a lot of copies.

Advantages

- Easy to load with paper
- It is compatible with nearly all paper sizes
- Fast and easy printing

Disadvantages

- Costs a lot of money

AO plotter is a very useful asset to the business. Without this there wouldn't be as much time because without the AO plotter it would be very time consuming to keep producing drawings straight onto paper. The standard printers they have wouldn't be able to print on paper the same size that the AO plotter can. This is why the business couldn't function as well without the AO plotter.

SOFTWARE

Microsoft outlook

This is a very powerful piece of software with many options and features, it is very useful to arh. You can type log on with your user name and type tasks into your calendar. You can also store contact details into it so that when you are typing your emails you can just click on the contact you want. Microsoft outlook is also a great email client. It has all the features of Outlook Express. When logging things into your calendar you can also attach any file that you may need for that particular task. Outlook can also be used in conjunction with a server. Everybody's Outlook accounts can all be logged in on server. This way if you are in a business anyone can access

anyone's calendar and all the contacts can be stored on the server so everyone can email everyone within the business. This would be good if all of a sudden a business wanted to arrange a meeting. The leader of the meeting could search all the calendars and check if there was a time where everyone had a vacant slot. The boss or administrator could also have the power to update their calendars for them.

Advantages

- Everyone has everyone's email address
- Meetings can be arranged quickly and easily
- Workers won't forget set tasks
- The calendar is very useful

Disadvantages

- Hard to set up
- Maybe hard to use for beginners

This software helps the business in a number of ways. The alternative would be to use word of mouth. Now the boss can arrange meetings very swiftly because he doesn't even have to mention it to anybody. All he/she has to do is update everyone's calendar through the server and the job done. Every worker in arh has to check their outlook every time they are on a computer to check for any crucial meetings. There is a downside to this because if a worker doesn't check up on their outlook account they may miss a meeting or forget about it even.

SAFETY/SECURITY

Arh have to the need to keep everything safe and secure because they can't let other companies get certain data such as people's details. Passwords are used to protect data. When ever using a computer at arh you have to type in a user name and password which limits them from things. For instance when a boss logs on there will be less limitations on the computer then there would be when a normal worker would log onto the computer. The boss will have privileges such as being to edit certain documents. Also all the computers are protected from the internet. Every time someone puts storage media into the computer it gets virus scanned. Also the main computer which is the server and is connected to the computer has an internet firewall which protects the computer from being hacked remotely. There isn't much that can get passed a firewall. For safety in terms of how safe the data is, there are copies of all the important documents are kept in a fire proof safe just in case there is a fire which burns the hole building down. Also every night a backup of the whole system is made on data tape. There is a separate tape for every day of the week. This tape is also kept in the fire proof safe in the event of a fire.

Advantages

- If there is a total system failure they have everything backed up
- Even in a fire the data is still safe
- They can't be hacked
- Bosses have more file permissions than all other workers
- Other companies can't get hold of their data
- They are protected from viruses
- Important files don't get edited or messed about with

Disadvantages

- Someone may rob the safe's contents
- Backing up may take long
- The boss could edit something to benefit him/herself
- Documents can be accidentally edited with people's details
- Some workers could forget passwords

The safety and security features of the arh business help them a lot. Without them they wouldn't be very successful because of all the human error that could occur. Without security anyone could come in and edit people's details and all the estimates, this would result in chaos with all the accounts etc. the alternative to safety and security would be to have all documents stored in locked cabinets or a safe even. Then only one person would have access to them. The fire proof safe is a very good asset to the business because whatever happens the data is always in there on data tape and all important documents on paper.

STORAGE DEVICES

There are many storage devices used by arh. One of these is the computer hard drives. The hard drives only have a small amount of space but they are fine for arh to use. Also the company use a type of storage called dat tape. This dat tape allows them to back up the system every day of the week. The dat tape is stored in a fireproof safe so this prevents data loss. All the computers have 256mb ram, which is more than enough that a computer needs for multi tasking. Workers mobile phones can be used for storage because you can store their calendars on them and they can synchronise them with Microsoft outlook at any time as long as a computer is near by.

Advantages

- You can save quite a lot on the server's hard drive.
- The computers can multi task easily without crashing at any point
- The data on dat tape can easily be restored onto the computer
- Dat tape has a huge capacity
- Data will never be lost even in the event of a fire
- They can store important documents

Disadvantages

- A worker may upgrade his/her mobile phone on the calendar and the boss may have arranged a meeting before you can synchronise the phone and upgrade your outlook calendar.
- Extra storage can be costly.

It helps the business a great deal if there are storage devices. All the data is safe on the computer and they are able to save a lot of information on the hard drives. Without the storage devices the computer wouldn't work and wouldn't even be able to store the operating system. This is why they are so useful to arh. It's a good thing that important tasks can be synchronised this means that important tasks will be alerted by their mobiles phones.

PORTS AND CABLES

Arh has lots of ports and cables, with these ports and cables the business could not have a network of computers. Every computer has a network card fitted, which also has a fast Ethernet port on it. Without any of these ports the computers wouldn't be able to be linked. The computers are all linked to a network hub, which has lots of Ethernet ports on it. The cables used allow data to be passed both ways they are Ethernet cross over cables. The cables are efficient and fast. There is no other way of connecting the computers together.

Advantages

- Fast and easy connection to the server.

Disadvantages

- Wires aren't cheap
- Lots of wires will get confusing

The ports and the cables help the business in lots ways. It provides a easy and fast connection to the server. Without the ports and cables the pc wouldn't have no

other way to gaining access to the main server computers. This is why they are useful to arh.

PROCESSORS

Arh use an amd athlon chip there computers. They are very reliable. The alternatives that they could use are Intel celeron processors or Pentium processors. The only different between these processors is the price of them and the popularity of them. The most well known processor is the Pentium processors it's been round the longest so most people go for the Pentium processor. With out a processor a computer can't function or do anything at all the amd athlon and the Pentium processor do the same thing they both also look pretty much the same.

Advantages

- Works just as good as the dearer ones
- Relatively cheaper than all the others
- Never need replacing
- Fast and efficient

Disadvantages

An amd chip will not work as fast as an Intel chip because Intel work closely with Microsoft and Microsoft make windows, which is the operating system of arh's computers.

The computer can't work well with out a computer so amd chips help a lot. The processor is the main bit of a computer, it determines whether the computer is 1200mhz or 1800 MHz. If there was no computer you will have to use pen and paper which is very time consuming and boring.

Evaluation

All the hard ware and software work well together. The processor can easily processor all the data and works well with the software and copes fine. The input devices can navigate the computer well. Data can be input easily and the pointing device works very well and never fails because is it so easy to use. The input devices hard cost anything, they come in very cheap. All the out put devices work well with the computer and they are fast and efficient. The software Microsoft outlook works well with the workers as a network. The boss is able to plan meetings and find empty time slots.