ITFreeTraining

Environmental Safety
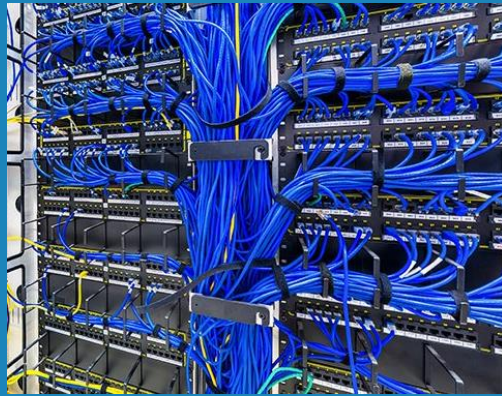
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In this video from ITFreeTraining, I will look at some of the environmental safety issues that you may encounter while working with computers. There are many hazards around you and it is critical to manage these correctly to keep yourself and others safe.

Cable Management

Poor cable management

Good cable management

Rack of different length cables

0:15 In order to make your workplace safe, you first need to manage the hazards around you. For any hazards in the workplace, either reduce or eliminate them. A good place to start is keeping the office tidy. There are many things that you can do to keep your workplace tidy, and the first one that we will look at is cable management.

Shown here is an example of poor cable management. Not the worst I have ever seen. In contrast, here is an example of good cable management. The key to good cable management comes down to two things. Firstly, using cable management solutions.

You can see in the first example the cables are hanging up and down. They are not attached to anything. In the second example, the cables are running through a cable management solution. You can see the cables are held in place with plastic clips. There are dedicated areas for cables to run which separates them from where they plug in. In the first example, you can see the cables are running in front of where they are plugged in making it hard to access them.

The second way to manage your cables is to use the right length cables. The simplest solution that I have seen to do this is to have a rack of cables available. You should keep this near where you need to use them. You want to keep the cable rack fully stocked up with cables of different lengths and colors to meet your requirements. If you don't have free cables of different sizes available, you will find that when there is a need to run a cable a short distance and there are only very long cables, the very long cables will be used. That potentially leaves a lot of unneeded cable that needs to go somewhere. Usually it ends up on the floor and becomes a trip hazard.

If you are very keen on cable management, you can make the cables to the size required. Later in the course we have a video that shows you how to do this. It takes a bit of extra time to do this. However, if you are keen you can attempt to sell the idea to your management, telling them that in the long run it costs a lot less to make the cables yourself rather than buy pre-made cables. The end result looks a lot better to.

Trip Hazards
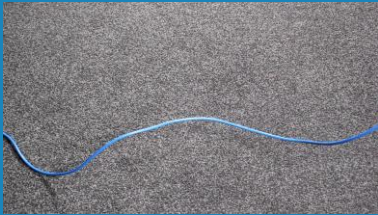
Don't leave cables running across floors

Tape down lose cables

Use cable protectors where possible

2:23 Limiting the cable length helps, but in some cases, you need to run long cables, as devices may be quite a distance apart. Whenever possible avoid running cables across floors as they create a trip hazard. A person tripping on a cable may result in them falling and hurting themselves, but also may damage whatever is connected to the cable. You don't want the device connected on the other side to go flying across the room or the port it is connected to be ripped out.

If you find you have no other option but to run a cable across a floor, secure the cable; the fastest and easiest way is to tape it to the floor. It is the work of moments to do this and it helps protect the people in the office from being hurt, not to mention the equipment it is plugged into.

If it is available or you're looking for a long-term solution, consider using a cable protector. These come in all different shapes and sizes, but essentially provide a contained pathway for the cable to run in. This prevents people tripping on the cable and the container provides a contoured surface making it hard to trip on the cable protector itself.

Desk Cable Management
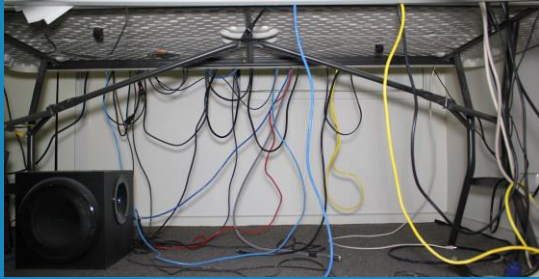
Don't have unsecure cables under desks or cables you can kick out

Modern desks have cable trays or they can be added

3:28 Next you need to consider where the cables run for your users' work areas. First, you don't want to have cables hanging under the desk or in locations where they can be kicked out. For example, having the computer plugged into a power point that can easily be kicked. You don't want your computer to suddenly lose power and you to lose all your work.

Modern desks will have built in cable trays for your cables. If they don't, you can easily add these to the desk. You can see in this example some simple netting is enough to organize all the cables and prevent them from hanging down or being accidently kicked.
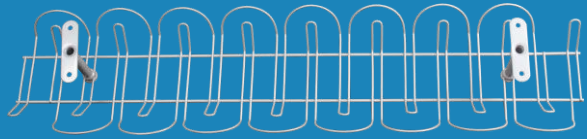
Cable Management

Cable management kit
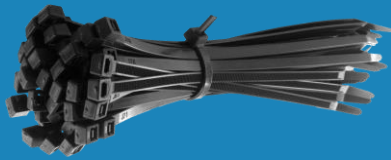
Addable cable tray

Cable ties

Cable tray with cables

4:04 If your desk does not have cable management, you can always add it. Shown here is a basic kit which contains cable ties, Velcro strips and cable clips. If you can't find a kit like this, you can usually buy these items separately. Even just having some cable ties to manage your cables will make a big difference.

Also, you are able to buy cable trays that can be added to tables and other office furniture. These cable trays allow you to run your cables in a managed way. Besides looking a lot neater, it also helps prevent cables from being accidently kicked out or unplugged.
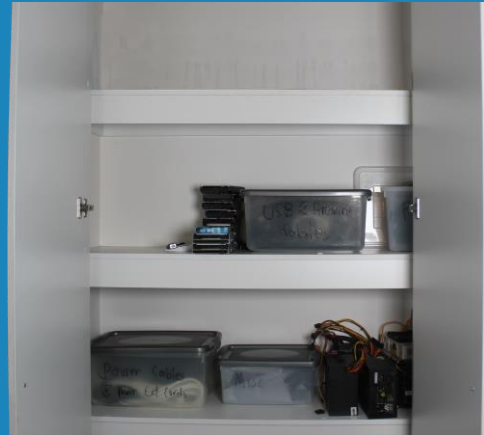
Cable Management Example

4:42 You can see in this example how using a few cable ties can make a big difference. In this case, all the extra cable lengths are tied up so they are not hanging down and are out of the way. Sometimes the difference between having good cable management and bad cable management is just a matter of being a bit creative on how you manage your cables. Doing something as simple as choosing a different power socket or a different location to put the computer can make a big difference.

Environmental Management

Store equipment sensibly
Dispose of old or extra equipment

Use storage solutions
Top shelf - don't use or light objects only

5:09 Next, think about how you store items around the office. You will find that old computer equipment is often stored in a pile somewhere and forgotten about. When you store old computers and equipment store them sensibly. Don't put items on top of each other so they can easily fall to the ground. To make things easy, dispose of old and surplus equipment.

You will find in many IT departments that, over the years, a lot of old equipment starts to pile up. This creates two problems. Firstly, the old equipment starts taking up a lot of space. Secondly, if not organized correctly, it becomes next to impossible to find anything. You will know this feeling when you are trying to find something as simple as a power cable and you have to dig through piles of computer equipment to find it. What is worse, when someone cannot find what they are looking for they will go out and buy another one. This just adds to the problem.

To reduce the problem, use a storage solution. A cupboard is one of the simplest solutions. You can see that adding some low-cost storage containers can make a big difference. It is easy to label the containers and keep track of what you have. For example, you could have a container for power cables. If the container gets full, you know you have enough spare power cables and you can dispose of some.

When possible, don't use the top shelves or only use them for light easy-to-handle objects. Even if you are very tall, remember that everyone else in the office may not be as tall as you. If you have to use the top shelves, think about if there is anything that can be disposed of. If you have a pile of old keyboards that have been in the cupboard for years, it is unlikely you will ever

use them. If you are not sure, one trick I use is to have an area allocated for old items. Anything I think is no longer required or extra I would put in this area. Every six months or so I would dispose of everything in that area. This helps if you are not sure what to get rid of and what to keep. If you have not used it in six months, it is unlikely that it will get used. If you find you need to use the top shelf, purchase a ladder or safe step so you can access that shelf safely.

That concludes this video from ITFreeTraining on environmental safety. I hope you have found this video useful. Until the next video, I would like to thank you for watching.

References
"The Official CompTIA A+ Core Study Guide (Exam 220-1001)" Chapter 3 Position 1950-2120 and 2444-2989
"Cable Management Example: Picture from Daniel J Vreeman"
https://cdn.danielvreeman.com/dv/wp-content/uploads/2014/02/under-desk-cable-management-1.jpg?iv=135

Credits
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