

Computer Science 415.340

Operating systems

WHAT MUST BE DONE

We have seen that in order to perform the essential functions of a computer system, we must provide certain facilities, some of which are necessarily hardware and some of which are more conveniently implemented as software. Our discussion so far has been at a fairly high level, but in order to put it into practice we must decide how we are going to use the low-level facilities offered by the computer hardware the best to provide the services we have identified.

In this section, then, we shall discuss the deeper structure which we must incorporate in the system if it is to behave as we require. We'll begin our discussion, following the rules of top-down development, with the requirement we identified in the chapter *PEOPLE : IMPLICATIONS*; we asserted that the system must provide "means to store things between working sessions", and we shall therefore discuss in principle what that means. But this is not enough; we must also tackle another topic which appears in the list of implications, rather obliquely, in terms such as "use the computer", "do the work", "follow the instructions", and the like. This – the real point of using a computer – is what makes things happen in the system, and is in the nature of activity or behaviour rather than something we can imagine as a collection of bits. It is surprisingly elusive when you try to pin it down precisely, but we shall try to do so later in the section.