Scheduling system

Science, Computer Science

Scheduling is the process of deciding how to commit resources between a variety of possible tasks. Time can be specified (scheduling a flight to leave at 8: 00) or floating as part of a sequence of events. The word may also refer to: * I/O scheduling, the order in which I/O requests are submitted to a block device in Computer Operating Systems * Scheduling (broadcasting), the minute planning of the content of a radio or television broadcast channel * Scheduling algorithm Scheduling (computing), the way various processes are assigned in multitasking and multiprocessing operating system design * Scheduling (production processes), the planning of the production or the operation * Schedule (workplace), ensuring that an organization has sufficient staffing levels at all times * Job scheduler, an enterprise software application in charge of unattended background executions. * Job Shop Scheduling, an optimization problem in computerscience. http://en. wikipedia. org/wiki/Scheduling cheduling computing Scheduling is a key concept in computer multitasking, multiprocessing operating system and real-time operating system designs. Scheduling refers to the way processes are assigned to run on the available CPUs, since there are typically many more processes running than there are available CPUs. This assignment is carried out by softwares known as a scheduler and dispatcher. The scheduler is concerned mainly with: * Throughput - number of processes that complete their execution per time unit. Latency, specifically: * Turnaround - total time between submission of a process and its completion. * Response time - amount of time it takes from when a request was submitted until the first response is produced. * Fairness - Equal CPU time to each process (or more generally appropriate times according to each process' priority). In practice,

thesegoalsoften conflict (e. g. throughput versus latency), thus a scheduler will implement a suitable compromise.

In real-time environments, such as mobile devices for automatic control in industry (for example robotics), the scheduler also must ensure that processes can meet deadlines; this is crucial for keeping the system stable. Scheduled tasks are sent to mobile devices and managed through an administrative back end. http://en. wikipedia. org/wiki/Scheduling_ %28computing%29 SYSTEM-(from Latin systema, in turn from Greek ??????? systema, " whole compounded of several parts or members, system", literary " composition"[1]) is a set of interacting or interdependent system components forming an integrated whole.

The concept of an " integrated whole" can also be stated in terms of a system embodying a set of relationships which are differentiated from relationships of the set to other elements, and from relationships between an element of the set and elements not a part of the relational regime. The scientific research field which is engaged in the study of the general properties of systems include systems theory, cybernetics, dynamical systems, thermodynamics and complex systems.

They investigate the abstract properties of the matter and organization, searching concepts and principles which are independent of the specific domain, substance, type, or temporal scales of existence. Most systems share common characteristics, including: * Systems have structure, defined by components and their composition; * Systems have behavior, which involves inputs, processing and outputs of material, energy, information, or

data; * Systems have interconnectivity: the various parts of a system have functional as well as structural relationships between each other. Systems may have some functions or groups of functions http://en. wikipedia. org/wiki/System scheduling 1. Assigning an appropriate number of workers to the jobs during each day of work. 2. Determining when an activity should start or end, depending on its (1) duration, (2) predecessor activity (or activities), (3) predecessor relationships, (4) resource availability, and (5) target completion date of the project. http://www. businessdictionary. com/definition/scheduling. html http://en. wikipedia. org/wiki/Scheduling- scheduling taken from wikipedia http://en. wikipedia. rg/wiki/Scheduling_ %28computing%29- scheduling taken from Wikipedia (computing) Scheduling Definition The process of converting a general or outline plan for a project into a time-based graphic presentation given information on available resources and time constraints http://www. maxwideman. com/issacons3/iac1302/tsld002. htm sched·ule ? ? /? sk? d? ul, -? l, -u? l; Brit. ??? dyul, ??? d? ul/ Show Spelled [skej-ool, -ool, -oo-uhl; Brit. shed-yool, shej-ool] Show IPA noun, verb, -uled, -ul·ing. –noun 1. a plan of procedure, usually written, for a proposed objective, esp. ith reference to the sequence of and time allotted for each item or operation necessary to its completion: The schedule allows three weeks for this stage. 2. a series of things to be done or of events to occur at or during a particular time or period: He always has a full schedule. 3. a timetable. 4. a written or printed statement of details, often in classified or tabular form, esp. one forming an appendix or explanatory addition to another document. 5. Obsolete . a written paper. –

verb (used with object) 6. to make a schedule of or enter in a schedule. 7. to plan for a certain date: to schedule publication for June.

Use schedule in a Sentence See images of schedule Search schedule on the Web Origin: 1350–1400; ; LL schedula, equiv. to L sched (a) leaf of paper + -ula -ule; r. ME cedule, sedule ; MF ; LL, as above http://dictionary. reference. com/browse/schedule manual system-A manual system usually means done by hand. That could be typing all your information into Notepad. http://answers. yahoo. com/question/index? qid= 20080902103751AAPQHyr system-(1) A group of interdependent items that interact regularly to perform a task. (2) An established or organized procedure; a method. 3) A computer system refers to the hardware and software components that run a computer or computers. (4) An information system is a system that collects and stores data. (5) On Macintoshes, System is short for System file, an essential program that runs whenever you start up a Macintosh. The System provides information to all other applications that run on a Macintosh. The System and Finder programs together make up the Mac OS. (6) System often simply refers to the operating system. http://www. webopedia. com/TERM/S/system. html SYSTEM: (1) A group of interdependent items that interact regularly to perform a task. 2) An established or organized procedure; a method. (3) A computer system refers to the hardware and software components that run a computer or computers. (4) An information system is a system that collects and stores data. (5) On Macintoshes, System is short for System file, an essential program that runs whenever you start up a Macintosh. The System provides information to all other applications that run on a Macintosh. The System and Finder programs together make up

the Mac OS. (http://www. webopedia. com/TERM/S/system. html) Effective Scheduling Planning to Make the Best Use of Your Time iStockphoto/vasiliki So far in this section of Mind Tools, we have looked at your priorities and your goals – these define what you aspire to do with your time. Scheduling is where these aspirations meet the reality of the time you have available. Scheduling is the process by which you look at the time available to you, and plan how you will use it to achieve the goals you have identified. By using a schedule properly, you can: * Understand what you can realisticaly achieve with your time. * Plan to make the best use of the time available. * Leave enough time for things you absolutely must do. Preserve contingency time to handle 'the unexpected'. * Minimizestressby avoiding over-commitment to yourself and others. How to Use the Tool: There are many good scheduling tools available, including diaries, calendars, paper-based organizers, PDAs and integrated software suites like MS Outlook or GoalPro 6. The scheduling tool that is best for you depends on your situation, the current structure of your job, your taste and your budget: The key things are to be able to enter data easily, and to be able to view an appropriate p of time in the correct level of detail.

Scheduling is best done on a regular basis, for example at the start of every week or month. Go through the following steps in preparing your schedule: 1. Start by identifying the time you want to make available for your work. This will depend on the design of your job and on your personal goals in life. 2. Next, block in the actions you absolutely must take to do a good job. These will often be the things you are assessed against. 3. For example, if

you manage people, then you must make time available for dealing with issues that arise, coaching, and supervision.

Similarly, you must allow time to communicate with your boss and key people around you. While people may let you get away with 'neglecting them' in the short-term, your besttime managementefforts will surely be derailed if you do not set aside time for those who are important in your life. 4. Review your To Do List, and schedule in the high-priority urgent activities, as well as the essential maintenance tasks that cannot be delegated and cannot be avoided. 5. Next, block in appropriate contingency time. You will learn how much of this you need by experience.

Normally, the more unpredictable your job, the more contingency time you need. The reality of many people's work is of constant interruption: Studies show some managers getting an average of as little as six minutes uninterrupted work done at a time. 6. Obviously, you cannot tell when interruptions will occur. However, by leaving space in your schedule, you give yourself the flexibility to rearrange your schedule to react effectively to issues as they arise. 7. What you now have left is your " discretionary time": the time available to deliver your priorities and achieve your goals.

Review your Prioritized To Do List and personal goals, evaluate the time needed to achieve these actions, and schedule these in. By the time you reach step 5, you may find that you have little or no discretionary time available. If this is the case, then revisit the assumptions you used in the first four steps. Question whether things are absolutely necessary, whether they can be delegated, or whether they can be done in an abbreviated way.

Remember that one of the most important ways people learn to achieve success is by maximizing the 'leverage' they can achieve with their time.

They increase the amount of work they can manage by delegating work to other people, spendmoneyoutsourcing key tasks, or usetechnologyto automate as much of their work as possible. This frees them up to achieve their goals. Also, use this as an opportunity to review your To Do List and Personal Goals. Have you set goals that just aren't achievable with the time you have available? Are you taking on too many additional duties? Or are you treating things as being more important than they really are? If your discretionary time is still limited, then you may need to renegotiate your workload.

With a well-thought through schedule as evidence, you may find this surprisingly easy. Key Points: Scheduling is the process by which you plan your use of time. By scheduling effectively, you can both reduce stress and maximize your effectiveness. Before you can schedule efficiently, you need an effective scheduling system. This can be a diary, calendar, paper-based organizer, PDA or a software package like MS Outlook or GoalPro 6. The best solution depends entirely on your circumstances. Scheduling is then a five-step process: 1. Identify the time you have available. . Block in the essential tasks you must carry out to succeed in your job. 3. Schedule in high priority urgent tasks and vital " house-keeping" activities. 4. Block in appropriate contingency time to handle unpredictable interruptions. 5. In the time that remains, schedule the activities that address your priorities and personal goals. If you have little or no discretionary time left by the time you reach

step five, then revisit the assumptions you have made in steps one to four.

(http://www. mindtools. com/pages/article/newHTE_07. htm)