

# HOW TO DRIVE YOUR SUPERVISOR

An Instruction Manual by Alan Creak, University of Auckland, Dept. Computer Science, Feb. 2001, (Shortened)

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**CONGRATULATIONS!** As one of the perquisites of your project or thesis, you have acquired an early (which is to say, only) model "Alan Creak" supervisor. This note will help you to get the most out of your new toy.

## WHAT YOUR SUPERVISOR IS.

Perhaps the most important feature of your supervisor is that it is designed to supervise. It is NOT designed to tell you what to do; that is your responsibility. It will observe what you do (so far as it can: unless it has a very strong reason to do so, it will not pry), comment if it sees fit, and offer advice and opinion if asked, but it will not interfere with what you are doing unless you are breaking the law or the university regulations, or in some way being offensive to other people.

Your supervisor is keen to help. It has been set up to be interested in your topic, and wants to see it go well. The extent to which it can provide practical help is limited (see below), but it is eager to play a full part in your investigations. Bear in mind, though, that it will notice if it ends up doing all the work.

Within the area of your work, your supervisor is essentially unoffendable. You may be as rude as you like about its opinions, suggestions, criticisms, or other types of output without any untoward consequences - provided only that you have some good reason for your derision. It has so far proved equally unoffendable in other fields, though it is underdamped and occasionally strong external impulses might initiate offence transients. These die away within minutes, or hours at the worst. Unoffendable or not, though, it can be disillusioned by anything it sees as avoidable stupidity or perverse irrationality, so if you enjoy such things it might be better not to mention them.

As well as all these desirable attributes, your supervisor is, unfortunately, busy. Current financial constraints make it impossible for the university to provide you with a modern Personal Supervisor for your desk; the best we can do is to give you access to an older multiprogrammed model. It is rumored that the supervisor has a background process concerned with its own research, but the priority of this is so low that you are rather unlikely to see it running. When overloaded, the system degrades

gracefully. (This might come as a surprise if your knowledge of it is limited to a visual inspection.) In extreme overload conditions, thrashing has occasionally occurred, but is usually detected quickly and handled by suspending processes of lower priority. Deadlock does not seem to be a problem. Yet.

## WHAT YOUR SUPERVISOR CAN DO.

There has been much discussion over the years on the purpose and abilities of supervisors, complicated by the wide variation in their properties. Standardization, whether desirable or not, has certainly not yet been achieved. Much seems to depend on the internal state of the individual supervisor. Your supervisor has a preset conviction that its job is to think about your work (and, to some extent, about you), and to make available to you the results of the thinking. Of course, it does rather expect you to think as well.

Your supervisor is equipped with an instant comment attachment. It will comment quickly, and sometimes at considerable length, on any topic you care to raise. While commenting, the thinking centers are not necessarily fully engaged, as they work comparatively slowly; you should always check the comments with some other thinking centre (for preference, your own) before accepting them unreservedly.

To cause your supervisor to work more in-depth on a topic, present it with a manuscript or essay in some electronic form. The supervisor will typically print the material, take the paper away, and think about whatever is written on it. This might take a few days. Eventually the supervisor will either return the paper, decorated with illegible comments, usually in red, and written very small, or it will return an electronic reply, in which fragments of your original material are mixed together with comments in a confusing way. It will, on request, interpret the comments. It is indiscriminate in its action, and will comment equally on completely wrong interpretations, major faults in logic, and trivial errors in spelling or punctuation. (This is not a bug, but a feature: it embodies the principle that mistakes are so elusive that any opportunity of pointing them out should not be missed.) It will also occasionally attempt weak jokes. This is not a feature.

Your supervisor will also, on request, lend you books and journals from its modest stock. Ask. Please bring them back. It will also draw to your attention any material it finds while reading current journals which it thinks might bear on your work. Be warned that the supervisor's imagination has been known to run riot, so the connection between its recommendations and your work, while usually present in some sense, might be remote; it's up to you to judge whether or not the material is sufficiently relevant to be useful.

## **PRINCIPLES OF OPERATION.**

Your supervisor is essentially a learning device, and works on the assumption that you are too. It does not see itself as a teaching device, but it has a certain amount of experience to which you can gain access by asking questions, eliciting comments, and so on. Because of this, the supervisor is only happy when it believes that you are learning something relevant to your work. It might be new information, or how to do something, or a deeper understanding of something you already know, or something else I can't think of at the moment.

It also believes that it is exceedingly important to do things well. Your supervisor will be more impressed by a comparatively limited topic explored thoroughly (whatever that means in the context) than with a sketchy coverage of a grander field without much detailed insight. This has all manner of consequences: one example is an insistence on asking questions. If you make an assertion, the supervisor will want to know the grounds on which the assertion is based, arguments for and against, and so on.

Your supervisor also strongly believes in documentation. This is partly because its memory is limited, and defective; in order to make any progress, it has had to adopt the convention that anything not recorded in reasonably permanent and readily accessible form does not exist. The documentation principle should be used whenever possible to avoid friction. You should keep a log of your work, so that it can be referred to in case of doubt as to what happened or what was concluded. Any conclusions from meetings or other discussions should be recorded there too.

It is your responsibility to control the comment attachment. You might find it necessary to stop the mechanism if it should stray into areas which are irrelevant to your work. It is usually possible to exercise control, if only because the supervisor must

occasionally pause for breath. Be ready for such a pause; then interject with some phrase like "To return to the point ..." or "But about whatever it was ...". This will usually be sufficient. Do not hesitate to use this control mechanism if it seems appropriate; while the supervisor can ramble on for hours if left unchecked, apparently with enjoyment, it is essentially a conscientious device.

## **MAINTENANCE.**

Your supervisor will run down unless stimulated by regular (usually weekly or fortnightly, depending on the time available) meetings with you. It cannot operate satisfactorily unless kept up to date with your work. A dose of novelty, however small, is needed at each meeting to maintain it in good working order, so make sure that each time you have some morsel to offer (e.g. results you have obtained, problems which have arisen, something from a book, some speculation about a topic discussed earlier). The supervisor is fitted with a self-starting device, but this should be reserved for emergencies: under normal conditions, you should initiate proceedings by introducing a topic for discussion.

If you find that the supervisor is unfamiliar with the background to your work, offer it copies of journal articles, or recommend books. This will not only inform the supervisor; it will also give a good impression of your industry in searching the literature.

When you have finished with your supervisor, remember that someone else might want it (or, at least, be unable to avoid it) next year. Try not to leave it in poor condition. It has certain recuperative powers which will bring it back into working order over a period of time, but you can help in several ways: (1) Please make sure you return any books, journals, documents, things, or whatever which the supervisor has lent to you. (2) Do not leave loose ends which your supervisor has to tidy up after you've gone. Either they won't get tidied up, or the supervisor will be constrained to spend time which should be spent on something else. (3) Don't leave behind things which are not documented and labeled; don't neglect to leave behind, labeled, things which are documented.

And if your experience through the year suggests that these notes should be changed in any way, let your supervisor know. It is equipped with a rudimentary self-adjustment circuit, which has occasionally been known to work.