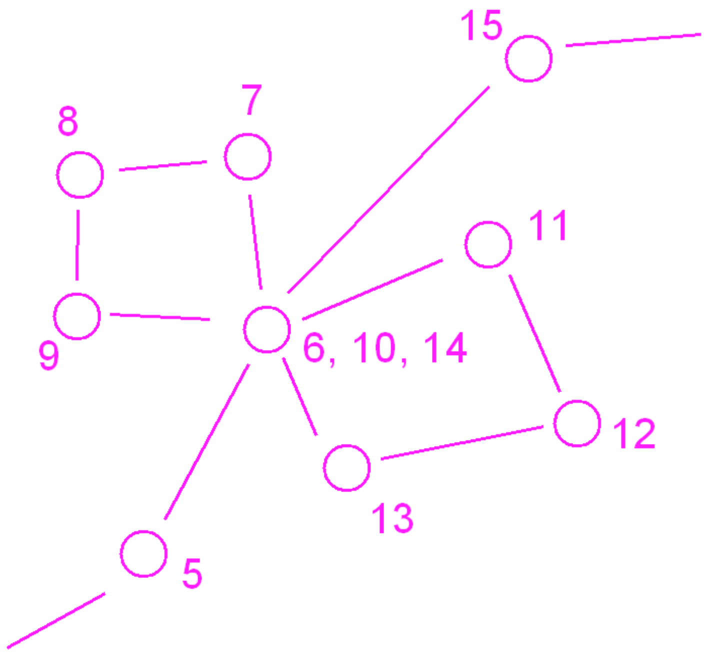
Butterflies

1.1.1 Description of method

The philosophy has traditionally been that there is a good orienteer navigating and a poor orienteer following behind. Thus the problem has been regarded as solved as soon as those two runners have been separated. In modern elite orienteering the problem is more of co-working. There are two nearly equally good orienteers that both benefit from being together with each other. As they are of equal ability they will also have more or less the same time through short butterfly loops.

Butterflies consist of two short loops. The same control is used for the first and last control in the butterfly as well as once in the middle. The runners run the two loops in different order. The butterfly may be extended to three or four loops.



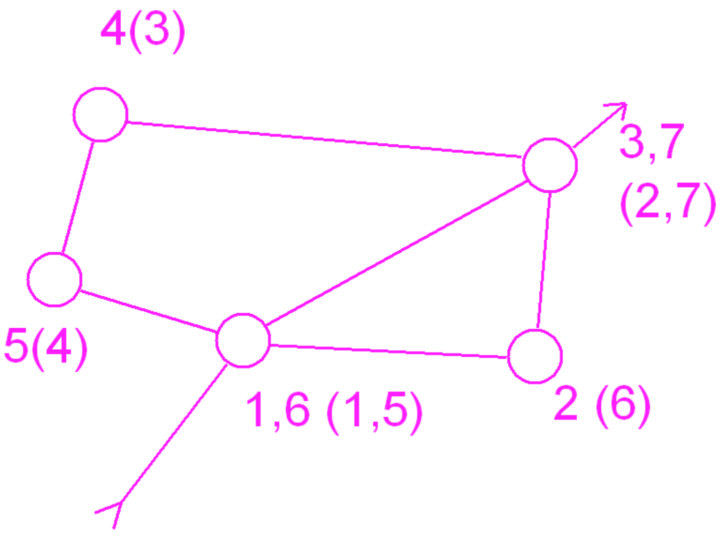
1.1.2 Examples

WOC 2001, WOC 2003, WOOC 2004, WOC 2006

Phi-loops

1.1.3 Description of method

The loops are named after the Greek letter phi (ϕ) because they look somewhat like this letter. There are two controls that are visited twice. At the first the runners are sent different ways through the phi-loop. At the second they are sent out in the common last part of the course.



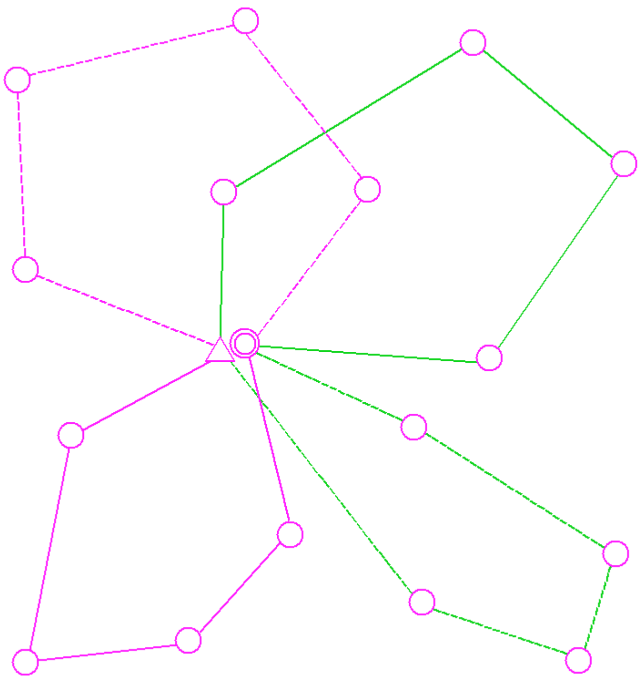
1.1.4 Examples

Norwegian night[illegible]mps Indre Østfold. mass start
WC-2006(?) GB
One could argue that WOC 2007 used a variation of this concept.

Loops

1.1.5 Description of method

The simplest way of separating the runners is to let them run two or three loops, before a possible joint last loop. If the loops are in different part of the terrain the runners will easily discover who they are together with. If the loops are intervened it is more difficult to discover who you are together with. If three loops are intervened it is difficult to discover who you are together with, on the other hand the same terrain will be used thrice. This will not only be boring for the runners, it might also cause sporting unfairness. Two route choices might be fairly equal in the first loop, but it might on a later loop be an advantage to have chosen one of them that can be reused.

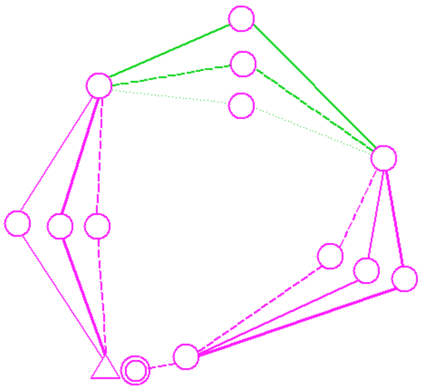


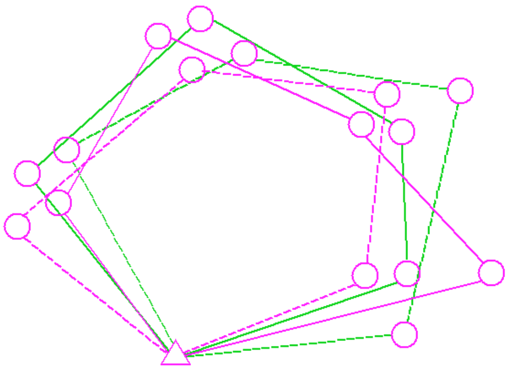
Forked loops

1.1.6 Description of method

The loops go through the same part of the terrain and have some common controls.

Forked loops makes it more difficult to know which runners have the same controls, and that will also change several times during the race. On the other hand this variation incures all the problems of intervened loops. This type of separating system is nearly always used for relays.





1.1.7 Examples

Blodslitet, WC 2007 Sweden

Micr-O

1.1.8 Description of method

Micr-o was developed to show orienteering on television. To high-light the navigation there are several false controls close to the correct one. To ensure that orienteering is still a running sport, and that small navigational errors are not punished to harshly penalty loops instead of disqualification is used to punish runners that punch a wrong control in each group.

The idea is to use micr-o controls to separate the runners. The strongest runner does fewest mistakes through the micr-o part of the course and ends up with fewest penalty loops. Thus the strongest runner gets away.

1.1.9 Examples

NOM 2005,
NM 2006

Macr-O

1.1.10 Description of method

In macr-o the micr-o concept is further developed to separate runners.

In this variation there is no change of map scale. Otherwise it is similar to micr-o

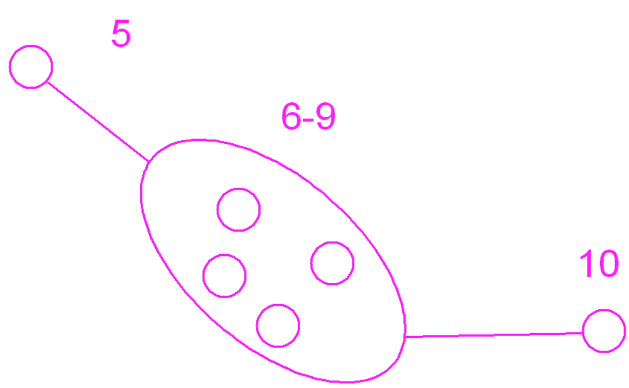
1.1.11 Examples

Norwegian Spring 2007
NM relay 2007 (combined with normal forked loops).

Point O

1.1.12 Description of method

In the course there is a group of control which the runner can visit in any order. Sometimes all the controls have to be visited, sometimes only a fixed number of them. The effect is much the same as for long route choice legs. It prevents the runners from getting together, but it will probably not separate much when runners are together.



Running stretches

1.1.13 Description of method

It has been suggested to include two running stretches of where the runners at the first get zero, one or two “penalty loops” at the first one. At the second the runners get two, one or zero “loops”. Total all runners have two loops. The loop should be approximately 30 seconds long.

Thus runners that are together are forced apart. Those that run 0 loops the first time run 2 loops the second time (thus all runners run 2 loops, e.g. 40 seconds dead running during the course). The system can separate three runners as described and can easily be extended to a higher number of runners.

The advantage of this system is that it will always separate the runners. It will separate 3 runners also (and can of course easily be extended to more runners if required).

Difference in length between two parts should be as close as possible to half of the start interval between runners.