

ORIENTEERING VICTORIA

MOUNTAIN BIKE ORIENTEERING: GUIDELINES FOR ORGANISERS 2014

MTBO EVENTS IN VICTORIA

Typically, four standards of events are organised in Victoria:

- Championship events (eg Victorian, Australian, Oceania Champs) – these are covered by the Orienteering Australia *Rules and Guidelines for MTBO* (or IOF Rules for World Ranking Events). Check the OA Website – which is linked from vicmtbo.com
- Vic MTBO Series events. (for summary requirements, see last page)
- Vic Summer MTBO events.
- Other events.

To provide consistency for competitors and have a standard 'product' to advertise and promote, these guidelines are being provided for each series in Victoria. Note that the *OA Rules and Guidelines for MTBO* set the overall standards for MTBO competition in Australia.

SUMMARY FOR VIC MTBO SERIES

- Check map accuracy
- Set courses as line courses: 1-2-3 etc.
- Course lengths & climbs checked and suitable for classes.
- Have a controller or second person to check courses etc
- Use SportIdent controls to provide splits etc
- Standard fees and event times
- Communication with riders – directions to event, for fairness on courses
- Pre-marked maps
- Results and info required for route gadget sent off ASAP.

MAPS - PREPARATION

Most of the Victorian MTBO maps are now on OCAD, which means that it is fairly easy to update them. Before each event, as you are checking and setting courses, keep an eye out for map corrections that should be made. eg

- Overgrown tracks to be removed from the map - or you could just delete the start/end of the track so it's no longer a route option. Another way of dealing with this if, for example, it's just a seasonal change, is to change the track symbol on OCAD to green which is hidden for printing. Then it can be resurrected if it again becomes rideable.
- Change of track grading – eg a previously smooth road that has been laid with blue metal and is now slow riding should no longer show as a solid line (See Appendix 1)
- New tracks – if you don't have the time/expertise to map the whole length of the track, at least mark the track junctions. You could then put a red cross on this incompletely mapped track to indicate it should not be ridden.

We are aiming to promote the Vic MTBO Series as a good set of events, so ideally you would want to have as accurate a map as possible for these events. Championship events have competitors from interstate and overseas and are often used as selection trials. It is critical that these maps are carefully checked for accuracy. We do not want courses cancelled or results jeopardized because of protests about unfairness relating to the map!

Make sure, with whatever changes you make, that the club master map file is kept up to date – with versions and update dates noted. Your club should have a system so that all organisers/course setters know where to go for the latest version of the map.

New maps should comply with the MTBO map conventions: refer to the IOF ISOM rules for MTBO maps and Orienteering Australia MTBO mapping guidelines.

Include on the map, an emergency contact phone number - the mobile phone number of one of the organisers - in the case of an accident during the event. The map should also have names of perimeter roads/tracks of the map labelled and/or geo reference so that assistance can be directed to near the scene of an accident.

PERMISSIONS, SAFETY AND ASSEMBLY AREA

You should contact the relevant land owners or managers to obtain permission to stage the event in sufficient time to cancel/reschedule if permission is refused. A minimum of 3 month's notice is suggested. (Parks Victoria can take longer than this!) Note that Parks Victoria now refer to "Expression of Interest" rather than "Application for Permit".

Some land managers now require a safety plan to be provided. A template is available on the VOA website – link to Organising Events – Health & Safety heading - [Emergency Procedures for Bush and MTB Events](#) and [Event Safety Plan form](#). But regardless of the requirements of land managers, organisers should

- have plans in place for dealing with first aid, search and rescue, and other emergencies.
- Check out the web documents above.
- Have a list of emergency contact numbers.
- arrange to collect the VOA MTBO First Aid kit in a backpack from Peter Cusworth and notify Peter of any supplies used.
- have a nominated first aider available,

If possible, set aside an assembly area where car parking can be off-road.

It is helpful to locate the assembly area near public toilets to avoid environmental issues or the cost of toilet hire. If you are providing toilets, 1 per 100 competitors is considered the minimum.

You may like to locate the registration, start and finish close together – easy to manage with a small workforce, and having the finish nearby gives spectator interest. But put safety measures in place to separate fast finishing riders from spectators and waiting competitors.

The area you have may dictate having a remote start. This will require more workers and more coordination but does provide a ready-made warm up for competitors. Be sure that the route to the start is well marked and ideally have a reliable form of communication between the start and the assembly area in case of problems.

For events using SportIdent, it is possible to have a remote finish – but be sure that the line from the finish back to the cars comes via the registration/download area to catch all finishers at the download. From a spectator viewpoint, it is preferable to have the finish at the assembly area.

It is desirable for the finish chute to be slightly uphill, sufficiently wide to allow at least two riders to approach the finish line together, and if you are not using a SI finish station at the finish, then provide a suitable ride-through area to permit safe stopping. It is desirable for the finish line to be some distance before the download station to prevent any download-queue from spreading back to the finish controls.

Note that the finish line should be clearly marked (eg with a finish banner) and the finish controls (for SI finish) **must have control flags**.

COURSES

For the **Vic MTBO Series**, we usually set 4 courses with a 5th course (4b) a bit shorter and less physically demanding than course 4. (This can often be achieved by deleting one or two controls from course 4, or just having another slight variation from course 4.)

			Approx length	Est wining time
Course 1	Open Men	Open 1	28-32 km	90-110 min
Course 2	M-20, M40, M50 Open Women	Open 2	20-26 km	80-90 min
Course 3	M-16, M60 W-16, W-20, W40, W50	Open 3	15-18 km	70-90 min
Course 4	M-14, M70 W-14, W60, W70	Open 4	9-14 km	60-75 min
Course 4b	M-12, M80, W-12, W80	Open 5	8-10 km	50-70 min

The desirable length of each course will vary according to the terrain and climb. If possible check out course lengths and winning times for this map or similar areas in the past. (It's good for your club to keep a record of courses/results for its events. Also, most events with results on the website have course lengths listed.) The OA Rules have desired winning times by age class and event type (long, middle, sprint). However with only 4-5 courses, it is not possible to satisfy winning times for each age class so a compromise is needed. (See also Appendix 3 for an extract from the IOF Rules for MTBO on courses. These will apply if you have a Championship event with a World Ranking Event, but are also of interest if you are charged with running a Sprint or Middle Distance event.)

All courses for the Vic MTBO Series must be line courses – ie visit controls 1-2-3 etc in order. **Course length** is measured following the shortest sensible route choice from the start triangle via the controls to the finish following permissible tracks/roads or open areas mapped as Open Land. (NOTE: Do not use the standard distance calculated in CONDES or other course setting software – it gives straight line distance, not the distance via tracks.) Total climb is calculated as the climb in metres along the shortest sensible route choice: count every 'up' contour along the route. See Appendix 2 for hints and tips on using the new MTBO course length calculator in CONDES.

For **Summer MTBO Series**, we place 20 controls. Riders select their own routes to visit as many controls as possible in 75 minutes. Again you should take terrain/climb into account, but you might plan for a total length of 25-28 km to visit all controls if your map area permits. A shorter length will allow more people than just the top couple to complete the full course.

PERSONNEL

MTBO events are often regarded as 'relatively low key'; There are often not many club members with MTBO interests so in past events often the same person has been designated as the organiser and the course setter. However for the **Vic MTBO Series** it is desirable to have at least 2 people in organising roles.

Championship events MUST have a **controller** appointed. The controller will check and advise on overall organisational aspects and assist the organiser to ensure that the event will meet the championship requirements. The controller will also work with the course setter to ensure that courses are of an appropriate length/standard.

Having a controller for a **Vic MTBO Series** event is also desirable however if a controller is not available, then the two-person organising-course setting team should take this role of support/checking across all aspects of the event. The Orienteering Victoria website has a checklist for organisers/controllers which, while written for foot-O events, is very applicable for all orienteering events. It asks a series of questions, prompting your consideration. It's located under Administration-Organising Events-Organiser and controller checklist:

http://www.vicorienteering.asn.au/gfolder/admin/policies/organiser_controller_checklist.pdf

At a minimum the course setter should have another experienced orienteer check the course lengths, appropriate standard of courses for the various age classes, and have an overview of the courses in the field to ensure mapping fairness. (You will recall the instance of the control placed on a track off a clearing, but on the map the clearing was shown at the next track along ...) There should also be a check on the final maps that they depict what was intended.

USING SPORTIDENT

All **Championship** and **Vic MTBO Series** events should use SI. This may be the full SI system, or the simplified SIME software – both use the same control units in the field, the difference is in the download hardware and management of entry and results on the computer. For SIME you do not need a computer at the event.

Using Eventor for pre-entry, you will have the entries on a computer. It is therefore useful to use a hybrid system of SIME-with computer on the day. Using the computer in this way saves having to type up the results separately for publication and later insertion into Eventor, and allows you to check that the rider actually visited all the controls correctly (not easily ascertained if using the SIME system alone). The dual system works like this:

- put the entries from Eventor into OE (the computer-based system that is used for foot orienteering events which use Sportident). Set up the OE file in the usual way: Add the courses/control numbers; link the classes with the courses.
- Take the computer to the event – either use a computer with a good internal battery, or use a small external battery and inverter to power the computer on the day.
- Take a “red download control unit” – available from the OV SportIdent gear – and attach this to the computer. (Note if you are not using an OV computer, you will need to have the driver for the download unit installed on your computer: test it before you leave home!!)
- On the day, add any Enter on the Day entries to the OE database on the computer.
- Finished riders will download their SI stick twice: once into the SIME results printer system to get their splits printout, and once into the computer – where you can check that they have correctly completed the course, and from where results will be available for publication once you get home.
- For results display on the day, have the riders write their finish time on a results slip to be displayed on your magnetic board, or hung from a line.

Many clubs have access to a system to **lock the control units**. You may use controls on standard control stands, or locked to a tree/post. If you are using lockable controls, be sure (in your course planning) that there is a suitable tree/post in the middle of the control circle, and at a position that can be easily reached by bike. The locked control should be approx 1m above ground – at about the same height as a control stand. Bear in mind that the rider's SI stick will be attached to the bike and must be easily able to reach the control unit. It is desirable for the lockable controls to also have a manual punch attached for use in case of SI failure.

If you are using the simplified SIME software without the computer as described above, there is no automatic check that the rider has completed the designated course. It is important that you have a system in place to do these checks before the results are finalised. If your club has not developed

processes for this, you may like to check the YVOC guidelines available as a separate document. (*SIME Step by Step* – contact Kathy Liley if it's not available on the MTBO website.)

COURSE SETTING

It is often said that the essence of mtbo is route choice. But it's actually more than that. What our serious riders are looking for is the need for decision making. Making an overall route choice between two (or hopefully more) alternatives is one decision, but ideally the route will then require lots of decisions of picking the correct track as the rider zig-zags across to the control.

Fairness is the overarching principle in orienteering. It is the competitor's responsibility to observe and comply with the event rules. It is the responsibility of the event organiser, course setter and controller to design a competition in which fairness is pre-eminent.

It is important that the map accurately depicts the track surface and terrain so that riders can make an informed choice on the route. If a solid line (ie fast) track on the map turns out to be covered in muddy puddles or crossed with unmarked fallen trees or recently spread with blue-metal, then this is an unfair depiction of the route choice. Likewise if a track that is mapped as 'dotted' (difficult to ride) turns out to be a relatively fast ride downhill, then those who avoided this route because of the mapping will be disadvantaged. (See Appendix 1)

Course setting should minimise the possibility of riders taking unmarked tracks. In an area where track junctions are vague, it is desirable to mark the mapped tracks on the ground (eg using sticks/stones on the ground at the side-track entrance, or using distinctive surveyors tape). And then be sure to tell the competitors what type of marking you have used!

Event information should make it clear to competitors where it is permitted to ride off tracks (eg only on clearings mapped as solid/dark yellow) and to make it clear if/where fence crossings may be permitted. The map should also clearly show which areas are out of bounds.

In some areas single mtb tracks come very close to each other or to adjacent vehicle tracks. It may be desirable to use a dark yellow 'clearing' symbol at such points to permit riding between the tracks here – to avoid the risk of riders gaining unfair disadvantage by crossing illegally. (And if you do this, then inform the competitors in advance.)

MTBO does not have the notion of 'easy' and 'difficult' navigation as these terms are applied in foot-O. All navigation is via tracks so in that sense it is all 'easy'. The main difference between Course 1 and progressively down to Course 4 and 4b, is length of course and amount of climb. For the older/younger competitors on Course 4/4b and to a lesser extent on Course 3, you might also consider the types of tracks to be used – so these courses may have less requirement to ride on 'difficult' tracks with more technical mtb riding. This is less important for Summer MTBO Series or Other events where the courses are not set as line courses – in these, competitors may be able to choose to omit some controls on difficult tracks.

Other considerations for course setting – Safety and fairness are paramount:

- Avoid setting courses which require competitors to ride in opposite directions on narrow tracks for any more than short distances.
- Where possible, don't have courses crossing main roads. If this is unavoidable, provide for a control just prior to the crossing or provide for a 'diagonal' crossing so that the rider will join the main road for a short stretch before crossing.
- Don't put controls at locations that may be dangerous eg blind corners, steep downhill, poor visibility, or near dangerous obstacles.

- Don't try to be too cute – if the rider gets to the track junction marked as the control location, then the control should be obvious; don't tuck it just out of sight down a near-invisible track – the challenge should be the navigation on the leg, not hunting in the last 30 metres.
- Controls on dead-end tracks require no navigation on these tracks – so just a short way in is better than a long ride in if there is no option to go out the other end. Also be aware that following riders who see others entering/exiting these tracks will be advantaged over those who are there alone. An in-out doubles this aspect of unfairness. Depending on the types of track options you have, it may be just as good to put the control on the junction.

MAPS - PRINTING

Maps must be pre-marked with courses/controls for all events. The standard for showing controls on maps is to show the control code on the map eg 1-46, 2-63 where the number on the control units is 46 and 63 respectively. (There is an option on CONDES to select this.)

Separate control descriptions are not usually provided – the control location should be clear from the map eg track bend, track junction, next to a dam beside the track.

If course-setting using OCAD it is best to produce the output/export file as a .PDF file. CONDES 9 now also has the option of a PDF export file. This could be the best reason to upgrade to CONDES 9! If you are still using CONDES 8, you get the export option as an .EPS file (which will include the background map). Any digital printer should be able to handle these formats. Note however that if you choose 'EPS' then you can't do a check of what you are sending to the printer. There is a possibility in CONDES 8 of 'printing' to a PDF file which can then be sent to the printer but you need to be careful of which version of PDF printer you are using. Refer to Ken Dowling's advice (see below) for the details of how to do this

For Vic MTBO Series of MTBO Summer Series it is OK to use normal paper – you can offer riders plastic bags if it's likely to be wet. Waterproof paper (eg Pretex) is an option for championship events.

For **championship events** it is important to take care with colour reproduction – OA has a new colour standard sheet for reference (check with your club mapping person if you don't know about this). Ideally **all events** should aim for the correct colour shading. It's important that the contours can easily be seen, and purple overprinting (control circles, numbers and lines joining the circles) is either transparent (Condes) or placed below the black (OCAD layers) so that the overprinting does not obscure important information. **THIS IS REALLY IMPORTANT.** (Refer to Ken Dowling instructions – link below)

If you can't do this, then give careful attention to breaking circles and lines to show track junctions and relevant track sections.

If you are having trouble with the final preparation of your map, you can send your PDF/EPS file to Peter Cusworth for assistance.

Ken Dowling has produced a number of papers to assist with the preparation of maps (using CONDES or OCAD) and to provide information to your printer. It's best if you read what he has written rather than to try to reproduce them here. Go to <http://ocad.com.au/mapping-resources/> see files under the heading Producing Digital Print Maps (scroll down to reach this section). Much of it will sound rather foreign to those of us not familiar with the territory, but they are clearly written – one is a guide for your printer!

There are a number of printers who are familiar with orienteering map printing – but don't assume that they will get the colours correctly.

If possible, get the printer to trim the paper to the edge of the paper border (ie with no white around the map) – to minimise the need for riders to fold the map.

EVENT INFORMATION

All event information should now be listed in Eventor. The State Series events have been created in Eventor, all ready for you to add your details. If you are organising additional events, you can create club events in Eventor from scratch without needing any additional approval from OV. Discuss with your club's Eventor Coordinator for assistance.

Attach a document to the Eventor site explaining details of the event that will not be otherwise obvious from the Eventor entry information.

Once you have set the event location, directions to the assembly area, fees, and start times and send this information to Peter Cusworth with some promotional blurb for the MTBO website.

For 2014, we will have common start times and fees* for **Vic MTBO Series** events.

Start times: Sundays: Advertise for starts from 11am to 12 noon – but allow starts to 12.30pm
Saturdays: Advertise for starts from 12.30pm to 1.30 pm – allow starts to 2 pm.

Fees* for State Series events

	OVic financial members	OVic Casual members	Event levy payable
Senior	\$18	\$28	\$6.60 (fin)/ \$16.60 (cas)
Junior	\$9	\$14	\$3.30 / \$8.30
Family	\$45	\$70	\$16.50/ \$41.50

* Note that if an event has additional expenses eg for land access, or toilet hire then clubs may add an additional amount to the fee to cover these expenses, but an explanation should be made for the higher fee in the event information.

Event fees for **championship events** should be calculated as part of the event budget, taking into account the higher event levy, an allowance for mapping costs for a new map, first aid, awards etc.

COMMUNICATIONS WITH COMPETITORS

Getting to the event: Be sure to have sufficient signage to direct competitors to the assembly area.

Be sure they are aware of the rules

- The obvious ones: helmets, keep to the left, share the tracks/roads with other users
- Downhill riders give way to uphill riders.
- Where they may ride – only 'bright yellow' clearings and marked tracks; are they allowed to cross any fences? If so which? Note that some tracks may be forbidden to ride (red cross or red wavy line)
- Course closure time. Set this so it's fair for the last starters.

NOTE, the SI stick no longer needs to be attached to the bike!

AFTER THE EVENT

RESULTS

Championship events: Full SportIdent results should be available. Provide Official Results and Split Times results to Peter Cusworth for upload to the website, and the Official Results to Blake Gordon for points calculation.

Vic MTBO Series events: Results to be provided to both Peter Cusworth and Blake Gordon – *as an export from Sport Ident* (as for Championships above) or from SIME. OTHERWISE in Excel Format (see table below for required formatting) or

Sample Excel file for results: Clearly state the event name and date; For each course give the course length; give the club and class; give times as min:sec.

VIC MTBO Series #9 Wheatsheaf. 10 September 2011					
Course setter/Organiser: Peter Cusworth for Bayside Kangaroos.					
Course 1 – 30 Km					
1	Steve Cusworth	BK	Open 1	105:47	
2	Phil Giddings	NE	Open 1	143:24	
3	Thor Egerton	BK	Open 1	143:33	
	Steve Nichols	MF	Open 1	DNF	Flat tyre

Points scoring towards the Vic MTBO Series Champion awards (awards by Age Class) will be based on results in the *course* on each event: 100, 99 etc for first, second etc.

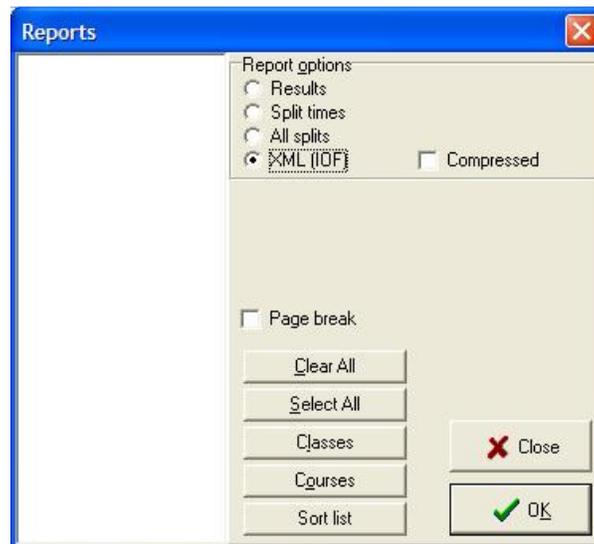
ROUTE GADGET

For all championship and Vic MTBO Series events, we want maps, courses and results loaded up into RouteGadget immediately after the event. Organisers will need to provide a copy of the map, courses and results to Ian Chennell (email to ian@chennell.com) . Note that you could send him the map/course information - and especially the copy of the map with controls master - prior to the event as he won't be competing. This will save time in the set up of RouteGadget.

The information that has to be sent is

- Base map file, preferably as a .jpg – good quality at resolution =100 dpi or 75 dpi. This can be easily exported from OCAD (and from the OCAD copy you are using as a background for Condes).
- Courses overlay – an XML format export file, created from Condes or OCAD.
- A copy of the event map with controls on it – best to be an all controls map if possible. Apparently the fiddliest part of RouteGadget setup is correctly registering the control circles on the map and it's good if the IT wizard can actually see on a 'hard' copy what is intended. So you could send a hard copy to Ian Chennell ahead of time (201 Melbourne Rd, Ballan 3342) – or you could scan a copy of the map with all controls and email that scan to him, or even take a digital photo of an all controls map – or a course 1 map which will use most of the controls – and email that to him.
- The splits file from the event. If you're using OE then you can do the Results-Splits report, grouped by Course, saved as a CSV file, and using H:MM:SS time format. (Note this is a different time format to what Peter Cusworth would prefer for web results.) OR if you're not sure how to do this, send Ian a zipped copy of the OEWKxxxx directory from OE after the event and he'll extract what he needs for the results.

- If you're using SIME, to get the splits file, go to reports and export the splits to XML (IOF format as indicated in the diagram below. (But be sure that you've got all the results named – see the SIME guidelines.)



APPENDIX 1 MTBO TRACK GRADINGS

This is sourced from the *MTBO Map Specs* document available on the OA website. If you are considering re-grading you should understand the 2x4 track grading system:

Tarmac/asphalt road 1.5 - 5 m wide. The space between the black lines must be filled with brown (50 %). The symbol may be used only for tarmac roads.

Riding speed on tracks (wider black line) and paths (narrow black line) is divided into four categories according to possible cycling speed as follows:

Track – the wider black line - at least 1.5 m wide.

Path – the thinner black line - narrower than 1.5 m wide.

Fast riding: solid black line: = A track/path with stabilised/well maintained surface. Forest road or well maintained track or smooth/clean path with no appreciable erosion or obstacles. Speed 75-100%.

Medium riding: long dash black: = A track/path with some reduction in speed with the possibility of small obstacles such as stones, rocks, ruts, grass, sand or mud. Speed 50-75 %.

Slow riding: short dash black: = A track/path with obstacles to require the riders to choose their way to avoid obstacles such as stones, rocks, ruts, grass, sand or mud. Possibility of rocky surfaces. Pedaling is more difficult, riding is slowed. Skilled/fit riders will pass. Less skilled/fit riders may have to dismount. Speed 25-50 %.

Difficult to ride: dotted black: = A track/path with difficult obstacles such as roots, deep sand/mud, erosion or rocky steps. Very slow riding or impossible to ride. Skilled/fit riders may be required to dismount. Speed max 25 %.

Note that these categories only depend on the width of the track and the surface of the track. Climb/descent is indicated by contours.

APPENDIX 2 USING THE MTBO COURSE LENGTH CALCULATOR IN CONDES

You can use CONDES to calculate your course lengths in the Course Edit window. Select Course Type = MTBO, and tick the box “use calculated length”. Go OK.

Course: 4

Course type
Mountain Bike O course

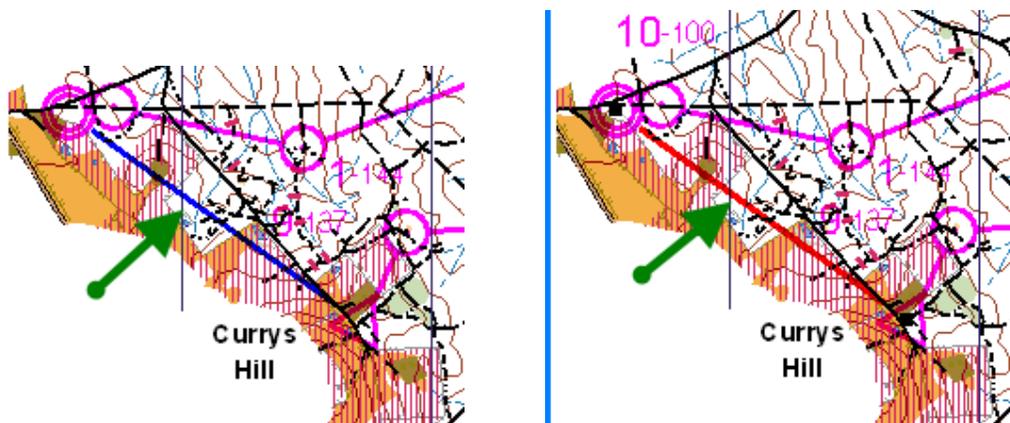
Start/finish
Start S
Finish F

Relay legs
Individual cour

Length
1.4 km (1434m)
 Use calculated length

Course overprint
Number format
7 - 81 (Number and cod)

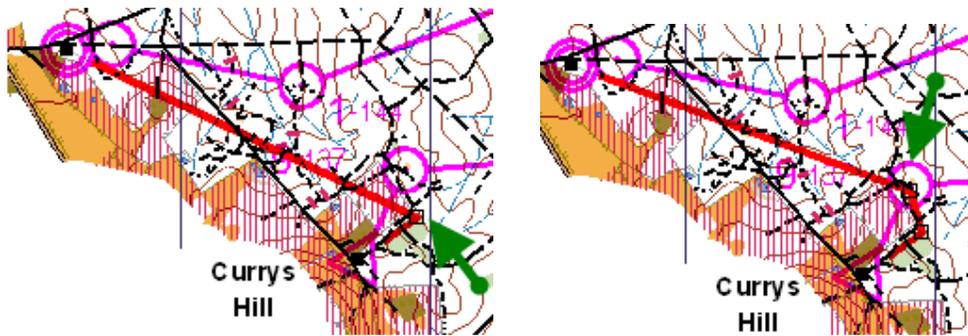
Back on the Course Layout Editor page (showing the map with the course), you now have a blue line linking the start and finish. Click on that line – it turns red.



Click on the tool on the top right toolbar on this page: Add Point.



Now click on the red line – it makes a point. Drag that to a place on the track after the start, along the shortest route towards #1. Now you have a red line that goes from the start towards #1. Repeat this and the red line will expand. Continue to do this until you have a red line that follows the track from the start to #1.



It's a bit fiddly, and difficult to explain in words or diagrams – it's interactive so you've actually got to do it before it makes much sense. But you end up with your red line linking the Start and finish, going via all the controls on what you judge to be the shortest route. And the distance on the course length box will now be close to the actual track distance.

Of course you might be just as quick using a piece of string. In which case un-tick the 'use calculated length' box and just type in your hand-measured length.

Get your controller to check your measurements!

APPENDIX 3

EXTRACT FROM IOF MTBO COMPETITION RULES, Appendix 7: Competition Formats

While these apply specifically to IOF events (world championships, WREs), they may offer assistance for local events. Refer to the IOF Rules for more detail on each discipline.

SUMMARY TABLE	Sprint	Middle	Long
Legs (all legs should have two or more options on the tracks.)	1–2 long leg/s (0.8–2 km) Majority short legs.	2–4 long legs (1–3 km) Majority short legs	majority (1–4 km) 3-5 short legs.
Profile	high speed, requires athletes' full concentration	technically demanding	-physical endurance - tests athletes' ability to make and plan efficient route choices
Terrain -	-very dense track network -forested area and/or urban area/ parks	-dense track network -non-urban (mostly forested) area	-non-urban (mostly forested) area -rough, demanding -preferably hilly
Route choice difficulty	low - medium	medium - high	high
Navigation difficulty (map reading)	high (constant contact with map is required)	-medium – high -technically demanding orienteeering	low - medium
Map scale	1:5000, 1:7500 or 1:10000	1:10000 or 1:15000	1:15000 or 1:20000
Map size	25 x 30 cm max.	30 x 42 cm max.	35 x 42 cm max.
Start intervals	2 minutes (could be reduced to 1 min subject to approval by the EA)	2 minutes	3 minutes (or mass start for one-man relay)
Winning times	20-25 minutes	women 45-50 min men 55-60 min.	women 85-95 min men 105-115 min.

Course planning	In order to avoid accidents: <ul style="list-style-type: none"> • Two different classes may not have the same leg in opposite directions • Two different classes having significantly different physical strengths may not have identical legs
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