

Basic Instructions

All you need to know to get started in orienteering!

Most orienteering events are one of two types:

Point-to-point - In standard 'point-to-point' orienteering events the winner is the fastest person between the start and finish points to visit all the controls on course. Controls **must** be found in the order shown - control circles are connected by lines.

Score - In score events you have a set amount of time to find as many controls (each worth a number of points) as you can and make it back to the finish. You lose points if you are late and gain bonus points if you collect all the controls and are back early. Controls can be visited in any order - control circles are not connected.

The basics

- You need to check in at each control with the timing system provided by the organizers. If, for some reason, the control doesn't register you should use the back up pin-punch to mark your map to prove you visited that control.
- Once you have punched the finish you may not go back on course to visit controls you have missed. (This rule is sometimes relaxed at less competitive events.)
- If you miss any required controls your result will be list as 'mis-punched' or mp. This is equivalent to not completing the course. Tip: Make sure to check that the control code on the control matches the code on your control descriptions or map so you know you are at the right one.
- The only navigational tools you are allowed to use are a magnetic compass and the official course map. With the exception of GPS sport watches, GPS devices are explicitly banned.

Getting Started

- You may rent a timing chip from the organizers or bring your own. Either way, data from previous races must be erased from the chip before you start. A system to do so is always provided.
- In point-to-point events, you may not start at the same time as another competitor on the same course as you (in score events typically everyone starts at the same time). If start times have not been pre-assigned you may start when you wish within the specified time-frame. If start times have been pre-assigned you must start at your assigned time.
- At championship competitions you are not allowed to look at the map or the course before your start time. At most events you are allowed to study the course and ask for help if needed when you arrive to register.

Safety

- All orienteers must carry a whistle with them while on course. If you are injured or completely lost blow three long blasts on your whistle every few minutes and don't move. Someone will come find you. Blowing your whistle as a joke or in order to distract a competitor so you can gain an advantage on course could result in disqualification.
- Your map should provide a safety bearing (direction) which you can use to get back to a major road or other feature which you can then follow back to the start or finish if you are lost. If this isn't mentioned on the map, ask an organizer.
- If you hear three long blasts while out on course you are obliged to quit your course in order to help the injured or lost party. Ignoring the call for help could result in disqualification.
- **You must ALWAYS report in to the results crew** at the finish line even if you do not complete your course.
- If there is a course cut-off time, you must make it back to the finish line and report to the results crew by that time. Even if it means quitting the course. If you are not back in time, race officials will initiate search and rescue procedures. Organizers have the right to ban repeat offenders from competing.

Fair Play

- **Certain features / map symbols are forbidden to cross. Pay particular attention to private property and out of bounds areas marked in olive green, or black or pink stripes.** If you are caught crossing these symbols you will be disqualified. See o-store.ca's legend sheets for which symbols are forbidden to cross.
- It is frowned upon to follow another competitor without doing your own navigation. Please respect the spirit of the sport and enjoy the challenge of finding your own way.
- In competitive events, it is also frowned upon to ask another competitor where you are unless you are very lost and are willing to give up your race result. This is considered ok for young children or in training scenarios.
- It is considered unsportsmanlike to purposefully engage in behaviour that is distracting to other competitors on course. Please be respectful of competitors that want to focus while racing.
- The environment is a critical part of orienteering. Please carry out everything you bring into the woods unless the organizers have explicitly stated that it is ok to leave something where they will clean it up at the end of the event.

And most important - enjoy the experience.

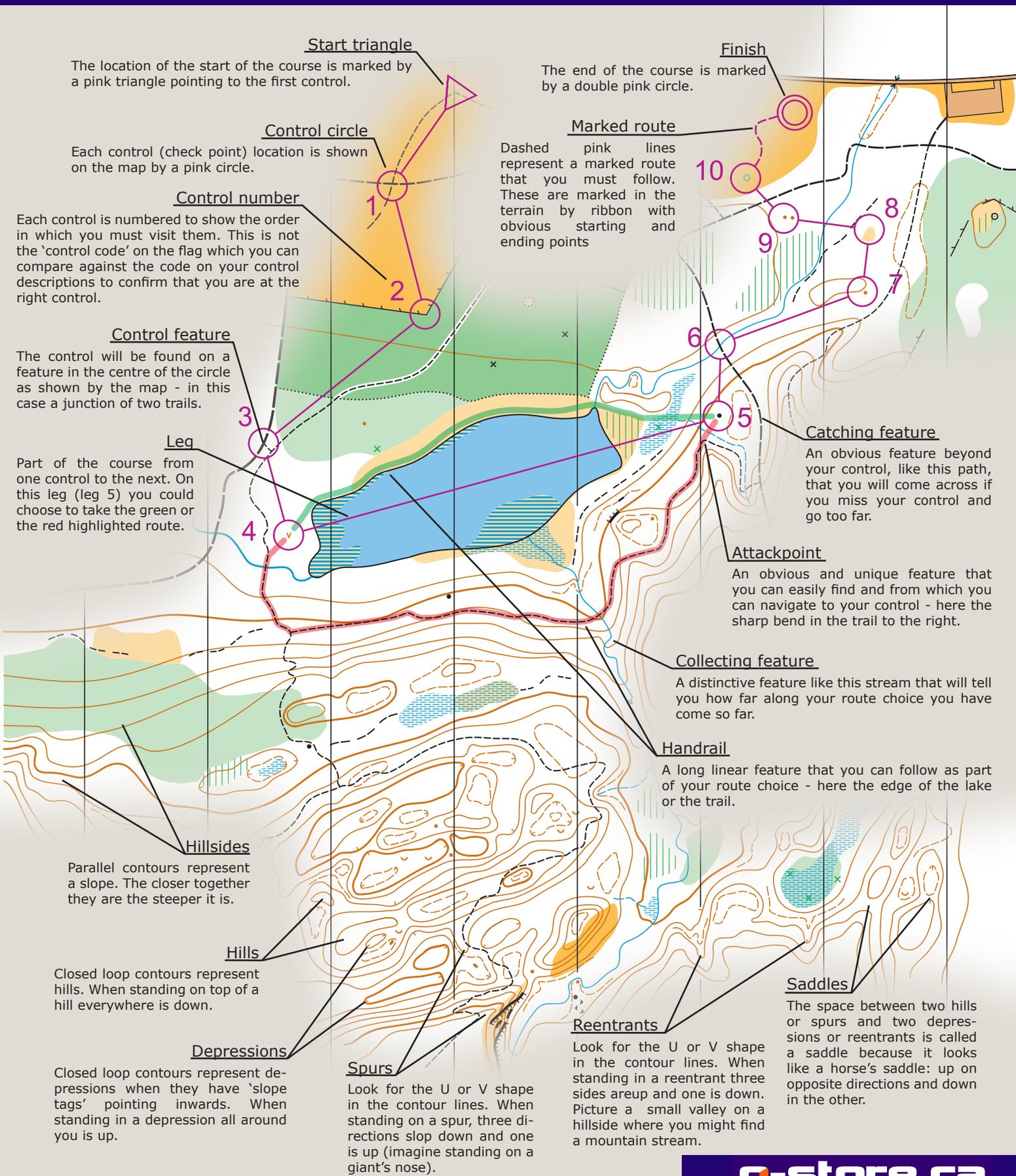
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This document is not to be taken as official. For official rules see your national federation's website or the international rules at orienteering.org.

The Orienteering Course

Annotated map and course with key terminology

Standard orienteering maps will always tell you what the scale and contour interval are (not shown in this example). Evenly spaced black or blue lines point to **magnetic north**.



Orienteering Map Legend

International Standard For Orienteering Mapping

This mapping standard (ISOM) is used for the majority of orienteering event maps of forest or wild areas. Standard map scales are 1:10,000 or 1:15,000. Scales of 1:7,500 and 1:5,000 are also common.

Land Forms

-  **Contours** (*slope tags point downhill*)
-  **Index contour** (*every 5th contour*)
-  **Form line** (*shows land form features between contours*)
-  **Small knolls** (*small hills*)
-  **Small depression, pit**
-  Earth bank (*earthen cliff*)
-  Earth wall or berm, smaller earth wall or berm
-  Erosion gully (*eroded trench*)
-  Small erosion gully or ditch
-  Broken ground (*lumpy - hard to run*)
-  Special land form feature*

Vegetation

-  **Open forest** (*80-100% running speed*)
-  **Forest** (*60-80%, 20-60%, 0-20% running speed*)
-  **Distinct vegetation boundary** (*e.g. between types of trees*)
-  **Undergrowth** (*slow running*)
-  **Dense undergrowth** (*hard to run*)
-  **Open land, with scattered trees**
-  **Rough open land, with scattered trees**
-  **Individual trees, particularly distinct tree**
-  Orchard, vineyard
-  Cultivated land (*black line shows distinct boundary*)
-  Forest: runnability in direction of stripes
-  Special vegetation feature* (*often means rootstock*)

Water and Marshes

-  **Lake**
-  **Ponds, waterhole**
-  **Uncrossable marsh**
-  **Marshes**
-  **Indistinct or seasonal marsh**
-  **Uncrossable river** (*crossable at break in black lines*)
-  **Small crossable creeks**
-  Minor water channel
-  Narrow marsh
-  Well, spring (*shown with stream flowing from it*)
-  Special water feature*

Rock and Boulders

-  **Impassable cliffs** (*tags point downhill*)
-  **Passable cliffs or rock faces** (*tags point downhill*)
-  **Rocky pit**
-  **Boulders, massive boulder**
-  **Boulder clusters**
-  Boulder field
-  Stony ground
-  Open sand or gravel
-  Bare rock
-  Rock pillars or distinctly shaped cliffs
-  Cave (*open end of V shows the direction of cave entrance*)

Man-made Features

-  **Building**
-  **Private developed area**
-  **Paved area**
-  **Road, major road, divided road**
-  **Small road** (*typically gravel*), vehicle track
-  **Path, small trail**
-  **Indistinct trail** (*hard to spot*), narrow ride or cut line (*break in trees*)
-  **Railway**
-  **Power line, major power line**
-  **Fence, ruined fence, high fence**
-  **Stone wall, ruined stone wall**, high stone wall
-  **Gate or crossing point** (*shown here in a fence*)
-  Trail junction, indistinct trail junction
-  Footbridge
-  Crossing point with bridge, without bridge
-  Tunnels
-  Ruin, small ruin
-  Firing range
-  Graves
-  Crossable pipeline, uncrossable pipeline
-  High tower, small towers (*such as hunting platforms*)
-  Cairn or large stone pile
-  Fodder rack
-  Special man-made features*
-  **Permanently out of bounds**

Technical Symbols

-  **Uncrossable boundary** (*often shown on top of another symbol like a fence*)
-  **Forbidden route** (*you can cross it but not travel along it*)
-  Crossing point
-  **First aid post**
-  **Out-of-bounds area**
-  **Refreshment point**
-  **Dangerous area**

Key to Text

Bold = commonly used symbols

Pink = forbidden to cross (if you do you will be disqualified)

*Special features symbols and their definitions should be listed on the map.

Sprint Orienteering Map Legend

International Standard For Sprint Orienteering Mapping

This mapping standard (ISSOM) is used for vast majority of urban orienteering events and for some short forest events.

Standard map scales are 1:4,000 or 1:5,000.

Man-made Features

-  **Paved areas** (in urban areas, in wild areas), (lines show steps and edges of pavement)
-  **Private developed area** (including gardens - see Vegetation)
-  **Building**
-  **Canopy** (light gray with outline)
-  **Pillars** (shown here under a canopy)
-  **Large, unpaved trail** (in urban areas, in wild areas)
-  **Small trail, indistinct trail** (hard to spot trail)
-  Narrow ride or cut line (gap in forest)
-  **Railways** (passable, impassable)
-  **Major powerline, small powerline**
-  **Bridge, tunnel / underpass**
-  **Passable fence, impassable fence**
-  **Gate or crossing point** (shown here in a fence)
-  Stone wall
-  **Passable wall, impassable wall**
-  Passable pipeline, impassable pipeline
-  High tower, small towers (such as hunting platforms)
-  Cairn, memorial, small monument, or boundary stone
-  Fodder rack
-  Special man-made features*

Technical Symbols

-  **Uncrossable boundary** (often shown on top of another symbol like a fence)
-  Crossing point
-  **Out-of-bounds area**
-  Dangerous area
-  **Forbidden route** (you can cross it but not travel along it)
-  First aid post
-  Refreshment point

Water and Marshes

-  **Impassable body of water** (pond, lake, deep river, etc.)
-  Waterhole
-  **Passable body of water** (shallow river, wading pool, etc.)
-  **Small creek, intermittent water-course**
-  **Narrow marsh**
-  **Impassable marsh**
-  **Marsh**
-  Indistinct or seasonal marshes
-  Well, spring (shown with stream flowing from it)
-  Special water feature*

Land Forms

-  **Contours** (slope tags point downhill)
-  **Index contour** (every 5th contour)
-  **Form line** (shows land form features between contours)
-  **Small knolls** (small hills)
-  **Small depression, pit**
-  Earth bank (earthen cliff)
-  Earth wall or berm
-  Erosion gully (eroded trench)
-  Small erosion gully or ditch
-  Broken ground (lumpy - hard to run)
-  Special land form feature*

Key to Text

Bold = commonly used symbols

Pink = forbidden to cross (if you do you will be disqualified)
Note the larger number of forbidden to cross features on sprint maps.

*Special features symbols and their definitions should be listed on the map.

Rock and Boulders

-  **Impassable cliffs** (tags point downhill)
-  **Passable cliffs or rock faces** (tags point downhill)
-  **Boulders, massive boulder**
-  Boulder field
-  Stony ground
-  Open sand or gravel
-  Bare rock
-  Rock pillars or distinctly shaped cliffs
-  Rocky pit
-  Cave (open end of V shows the direction of cave entrance)

Vegetation

-  **Open forest** (80-100% running speed)
-  **Forest** (60-80%, 20-60%, 0-20% running speed)
-  **Impassable thick vegetation, hedge**
-  **Private developed area, garden or flower bed**
-  **Distinct vegetation boundary** (e.g. between types of trees)
-  **Undergrowth** (slow running)
-  **Dense undergrowth** (hard to run)
-  **Open land, with scattered trees**
-  **Rough open land, with scattered trees**
-  **Individual trees, particularly distinct tree**
-  Orchard, vineyard
-  Cultivated land (black line shows distinct boundary)
-  Forest: runnable in direction of stripes
-  Special vegetation feature* (often means rootstock)

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For the complete international mapping specification visit www.orienteering.org.

International Orienteering Federation symbols

Control descriptions are designed to complement the map and give additional information about the location of each control. With practice you should be able to use the control descriptions to visualise the location of the control flag before you get there. This allows you to orienteer much more smoothly throughout the course.

Different columns give different information

A - Control number

1	B - Control code
155	C - Which of similar features
	D - Control feature
	E - Appearance / Second feature
	F - Dimensions / Combinations
	G - Location of the control flag
	H - Other information

Control description sheets also give information about the course length and amount of climb (if calculated), special instructions about marked routes or map exchanges, and information about the run from the last control to the finish.

IOF Control Descriptions		
Sample Layout	4.3 km	25 m
1 145		
2 152		
○ --- 150 m --->		
3 153		
○ --- 200 m --->		

A - Control number

The control number matches that shown on the map - usually counting up from 1.

B - Control code

The control code is also shown on the control flag and is used to verify that you are at the right control. They are most often numbers but sometimes letters.

C - Which of similar features

	Northern*		Lower
	Upper		Middle

* Can be rotated to mean north-western, western, etc.

Column D - Control feature

The black and white symbols (left) that appear in the control descriptions match different symbols (right) on the map.

		Terrace (flatter spot on a hillside)			Cave			Open land			Stone wall
		Spur			Boulder			Semi-open land			Fence
		Re-entrant			Boulder field			Forest corner			Crossing point
		Earth bank			Boulder cluster			Clearing			Building*
		Quarry			Stony ground			Thicket			Paved area*
		Earth wall			Bare rock			Linear thicket (hedge)			Ruin
		Erosion gully			Narrow passage (between two cliffs)			Vegetation boundary			Pipeline
		Small erosion gully or ditch			Lake			Copse			Tower
		Hill			Pond			Distinctive tree			Shooting platform
		Knoll			Waterhole			Tree stump or root stuck			Boundary stone or cairn
		Saddle			River, stream, or water-course			Road			Fodder rack
		Depression			Minor water channel			Track / Path			Charcoal burning ground
		Small depression			Narrow marsh			Ride or cut line			Monument or statue*
		Pit			Marsh			Bridge			Building pass through or canopy*
		Broken ground			Firm ground in marsh			Power line			Stairway*
		Ant hill or termite mound			Well			Power line tower			Special item
		Cliff or rock face			Spring			Tunnel			Special item
		Rock pillar			Water tank, water trough						

* These descriptions are used more in urban events and so the corresponding sprint map symbols are shown.

Orienteering Control Descriptions

International Orienteering Federation symbols

E - Appearance

	Low
	Shallow
	Deep
	Overgrown
	Open
	Rocky or stony
	Marshy
	Sandy
	Needle leaved
	Broad leaved
	Ruined

F - Dimensions/Combinations

	Height or Depth (e.g. of boulder or pit)
	Size*
	Height on slope**
	Heights of two features
	Crossing (4-way junction)
	Junction (3-way junction)

All dimension are in metres.

* Rough length and width of a feature on the ground when it is not obvious from the map - e.g. an oddly shaped knoll or small clearing. A large clearing drawn to shape does not need this.

**Height of the feature as seen from above and below.

G - Location of the control flag

	North east side*
	West edge*
	South part*
	East corner (inside)*
	North corner (outside)*
	North west tip*
	Bend
	North end*
	Upper part
	Lower part
	Top
	Beneath
	Foot
	North east foot*
	Between

H - Other info

	First aid post
	Refreshment point
	Location of radio or TV control

* Directional symbols can be shown facing any of the 8 cardinal directions to show which side, corner, etc. the flag is at.

Example Control Descriptions

Example Event Name		
Sample Course	3.3 km	10 m
1 150		
2 151		
3 126		
4 127		
5 131		
6 132		
7 133		
8 130		
9 129		
10 128		

Course is 3.3km with 10m of climb

- Bend in trail
- Intersection of two trails
- Inside south-east corner of fence
- T-junction of two trails
- Pit
- South-west side of boulder
- Intersection of path and stream
- Between hill and knoll
- Northern part of clearing
- North side of western knoll
- North side of deciduous tree
- 200m marked route from last control to finish



Special Instructions

The following special symbol rows show different mandatory instructions. Marked routes and crossing points are also marked on the map and in the terrain with some kind of ribbon or fencing. They must be followed.

Follow 225 m marked route away from control	Follow 250 m marked route to map exchange
Follow 175 m marked route between controls	Follow 275 m chute from last control to finish
Mandatory crossing point (or points) between controls	Navigate to start of 175 finish chute then follow to finish
Mandatory passage through out of bounds area between controls	Navigate 150 m to finish. No chute or marked route.