

# International Specification for Control Descriptions

IOF Event Example					
M45, M50, W21					
5		7.6 km		210 m	
1	101				
2	212			1.0	
3	135				
4	246				
5	164				
○----- 120 m ----->					
6	185				
7	178				
8	147			2.0	
9	149				
○----- 250 m ----->⊙					



**INTERNATIONAL ORIENTEERING FEDERATION**

**2004**

# INTERNATIONAL ORIENTEERING FEDERATION

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## **IOF Control Descriptions**

### **Major Changes to the 1990 version:**

- 1) Names and descriptions brought into line with the ISOM 2000 terminology.
- 2) Removal of 1990 symbols for Rib, Cairn/stone pile, Small marsh, Ditch, Felled area, Hedge.
- 3) Removal of Additional symbol for Salt Lick.
- 4) New symbols introduced for Boulder cluster, Water tank or trough, Tunnel, Crossing point, Paved area, Pipeline, Low, Beneath.
- 5) Change of symbol for Copse, Distinctive Tree.
- 6) Redefinition of symbol previously used for Seasonal watercourse.
- 7) Three new symbols introduced for use in Park/Sprint 'O'.
- 8) New special instruction lines introduced for Taped Route between control sites, Mandatory Crossing Points between controls, and Mandatory Route through Out of Bounds.
- 9) Crossing and Junction symbols moved to Column F, and both features must always be shown in columns D and E.
- 10) Between symbol remains in Column G, but both features must now be shown separately in columns D and E.
- 11) Clarification of when Column G - Location of the control flag needs to be used.

# Introduction

Orienteering is a worldwide sport. It is the aim of the IOF control description symbols to provide a stable means for orienteers from all countries to be able to understand control descriptions without ambiguity or the need for language translation. This booklet shows how the symbols can be used to do this.

## How IOF control descriptions work

The purpose of a control description is to give greater precision to the picture given by the map of the control feature and the location of the control flag in relation to this feature.

However, a good control is found primarily by map reading. Descriptions and codes can assist in this task, but should be kept as short and simple as is necessary to locate the control.

Note: Control descriptions should not be used to correct map errors.

## Sample control description sheet

IOF Event Example				
M45, M50, W21				
5		7.6 km		210 m
1	101			
2	212		1.0	
3	135			
4	246			
5	164			
○--- 120 m --->				
6	185			
7	178			
8	147		2.0	
9	149			
○--- 250 m --->⊙				

Control Descriptions for IOF Event Example		
Classes M45, M50, W21		
Course number 5	Length 7.6 km	Height climb 210 m
Start		Road, wall junction
1	101	Narrow marsh bend
2	212	North western boulder, 1 m high, east side
3	135	Between thickets
4	246	Middle depression, east part
5	164	Eastern ruin, west side
Follow taped route 120 m away from control		
6	185	Stone wall, ruined, south east corner (outside)
7	178	Spur, north west foot
8	147	Upper cliff, 2 m high
9	149	Path crossing
Follow taped route 250 m from last control to finish		

## Control description sheet format

The control description sheet for an orienteering course contains the following information:

Heading

Start Location

Description of individual controls, incorporating any special instructions such as the length and nature of any marked route during the course

Nature of route from the last control to the finish

When printed, the description sheet boxes should be square, with a side dimension of between 5mm and 7mm.

When control descriptions are provided in a written form the overall presentation should be similar to that of the pictorial version, and the description of the individual controls written, as far as possible, in the same order as for the pictorial version.

### Heading

Event title.

Classes (optional line).

Course code; Course length in kilometres to the nearest 0.1km; Height climb in metres to the nearest 5m.

### Start location

Shown in the first line of descriptions, using the description as if it were a control feature.

### Description of individual controls

These are in the order in which they are to be visited, and may incorporate special instructions such as the length and nature of any marked route during the course. A thicker horizontal line should be used after every third description and on either side of any special instruction.

<table border="1"> <thead> <tr> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> <th>G</th> <th>H</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>225</td> <td>↘</td> <td>⊙</td> <td>⊞</td> <td>8x4</td> <td>◀</td> <td>🚶</td> </tr> </tbody> </table>	A	B	C	D	E	F	G	H	2	225	↘	⊙	⊞	8x4	◀	🚶	A	Control number
	A	B	C	D	E	F	G	H										
	2	225	↘	⊙	⊞	8x4	◀	🚶										
	B	Control code																
	C	Which of any similar feature																
	D	Control feature																
	E	Appearance																
	F	Dimensions / Combinations																
G	Location of the control flag																	
H	Other information																	

## **Explanation of Columns**

Each control is described in the following manner:

### **Column A - Control number**

Numbering of controls is in the sequence they are to be visited, unless the description is for a Score competition.

### **Column B - Control code**

The control code should be a number greater than 30.

### **Column C - Which of any similar feature**

This column is used when there is more than one similar feature within the control circle; e.g. south eastern.

### **Column D - Control feature**

The feature, as shown on the map, at the centre of the circle defining the control site; e.g. clearing; boulder. The description of each control is based on the International Specification for Orienteering Maps (ISOM 2000).

### **Column E - Appearance**

Further information on the nature of the feature if it is required; e.g. overgrown; ruined.

In certain circumstances also used for a second control feature where the description requires this.

### **Column F - Dimensions / Combinations**

Dimensions of the feature should be given where the size of the control feature on the map is symbolic rather than to scale.

Also used for the two combination symbols (crossing; junction).

### **Column G - Location of the control flag**

Position of the control flag with respect to the feature; e.g. west corner (outside); south foot.

### **Column H - Other information**

Other information that may be of importance to the competitor; e.g. radio control; refreshments.

## **Special Instructions**

These lines go in the body of the descriptions and give specific information about the nature of the route that must be followed at that point; e.g. follow taped route for 50m away from the control; use mandatory crossing point.






## **Nature of route from the last control to the Finish**

This line shows the distance from the last control to the finish, and the nature of any taped route at the finish.

## **Explanation of Symbols**











Where an ISOM reference number is given this shows the relationship to the map symbol as defined in the ISOM 2000 specifications.

## Column C - Which of any similar feature

Ref.	Symbol	Name	Description
0.1		Northern	The more northern of two similar features, or the northern-most of several similar features.
0.2		South Eastern	The more south eastern of two similar features, or the south-eastern-most of several similar features.
0.3		Upper	Where the control feature is directly above a similar feature.
0.4		Lower	Where the control feature is directly below a similar feature.
0.5		Middle	Where the control feature is the middle one of a number of similar features.

## Column D – The Control Feature

### Land forms (ISOM section 4.1)












Ref.	Symbol	Name	Description	ISOM
1.1		Terrace	A level area on a slope.	
1.2		Spur	A contour projection or “nose” rising from the surrounding ground.	
1.3		Re-entrant	A contour indentation; a valley; the opposite of a spur.	
1.4		Earth bank	An abrupt change in ground level which can clearly be distinguished from its surroundings.	106
1.5		Quarry	Gravel, sand or stone working in flat or inclined ground.	106
1.6		Earth wall	A narrow wall of earth projecting above the surrounding terrain; may be partially stone faced, usually man-made. Used with symbol 8.11 to indicate a ruined earth wall.	107 108
1.7		Erosion gully	An erosion gully or trench, normally dry.	109
1.8		Small erosion gully	A small erosion gully or trench, normally dry.	110
1.9		Hill	A high point. Shown on the map with contour lines.	101 111
1.10		Knoll	A small obvious mound. Used with symbol 8.6 to indicate a rocky knoll.	112 113

Ref.	Symbol	Name	Description	ISOM
1.11	) (	Saddle	The low point between two higher points.	
1.12	⊖	Depression	A depression or hollow from which the ground rises on all sides. Shown on the map with contour lines.	114
1.13	∪	Small depression	A small, shallow, natural depression or hollow from which the ground rises on all sides.	115
1.14	∇	Pit	A pit or hole with distinct steep-sides. Usually man made. Used with symbol 8.6 to indicate a rocky pit.	116 204
1.15	∩ ∪	Broken ground	Clearly disturbed ground with features too small or too numerous to be mapped individually; including animal earths.	117
1.16	✱	Ant hill (termite mound)	The mound made by ants or termites.	





#### Rock and boulders (ISOM section 4.2)

Ref.	Symbol	Name	Description	ISOM
2.1	▬▬▬	Cliff, Rock face	A cliff or rock face. May be passable or impassable.	201 203
2.2	▲	Rock Pillar	A high, natural rock projection.	202
2.3	↘	Cave	A hole in a rock face or hill side, often leading to underground workings.	205
2.4	▲	Boulder	A prominent free-standing block of rock or stone.	206 207
2.5	▲▲▲	Boulder field	An area covered by so many boulders that they cannot be individually mapped.	208
2.6	▲▲	Boulder cluster	A small distinct group of boulders so closely clustered together that they cannot be individually mapped.	209
2.7	●●●●	Stony ground	An area covered with many small stones or rocks.	210
2.8	✱	Bare rock	A runnable area of rock with no earth or vegetation cover.	212
2.9	] [	Narrow passage	A gap between two cliffs or rock faces that face each other.	







## Water and marsh (ISOM section 4.3)

Ref.	Symbol	Name	Description	ISOM
3.1		Lake	A large area of water, normally uncrossable.	301
3.2		Pond	A small area of water.	302
3.3		Waterhole	A water-filled pit or depression.	303
3.4		River, Stream, Watercourse	A natural or artificial watercourse with either moving or standing water.	304-306
3.5		Minor water channel, Ditch	A natural or man made minor water channel which may contain water only intermittently.	307
3.6		Narrow marsh	A narrow marsh or trickle of water, too narrow to be shown on the map with the marsh symbol.	308
3.7		Marsh	A permanently wet area with marsh vegetation.	309-311
3.8		Firm ground in marsh	A non-marshy area within a marsh, or between two marshes.	309-311
3.9		Well	A shaft containing water or a captive spring, clearly visible on the ground. Often with some form of man-made surround.	312
3.10		Spring	The source of a watercourse with a distinct outflow.	313
3.11		Water tank, Water trough	A man made water container.	









## Vegetation (ISOM section 4.4)















Ref.	Symbol	Name	Description	ISOM
4.1		Open land	An area with no trees. Grassland, a meadow or a field. Also heath or moorland.	401 403
4.2		Semi-open land	An area of open land with scattered trees or bushes.	402 404
4.3		Forest corner	The corner or tip of a forested area projecting into open land.	
4.4		Clearing	A small area of land free from trees within the forest.	401 403





Ref.	Symbol	Name	Description	ISOM
4.5		Thicket	A small area of forest where the tree cover or undergrowth is so dense that it is difficult to pass.	408 410
4.6		Linear thicket	A man-made line of trees or bushes that is difficult to cross.	410
4.7		Vegetation boundary	A distinct boundary between different types of trees or vegetation.	416
4.8		Copse	A small area of trees in open ground.	405 406
4.9		Distinctive tree	An unusual or distinctive tree in either open land or forest; frequently information is also given as to its type.	
4.10		Tree stump, Root stock	The stump of a tree.  The upturned root of a fallen tree, with or without the trunk.	

#### Man-made features (ISOM section 4.5)

Ref.	Symbol	Name	Description	ISOM
5.1		Road	A metalled/asphalt surfaced or dirt road, suitable for vehicles in normal weather conditions.	501- 504
5.2		Track / Path	A visible route made by people or animals. Tracks may be driven by rugged vehicles.	505- 508
5.3		Ride	A clearly visible linear break in the forest which does not have a distinct path along it.	509
5.4		Bridge	A crossing point over a watercourse, or other linear feature.	512 513
5.5		Power line	A power or telephone line, cableway or ski lift.	516 517
5.6		Power line pylon	A support for power or telephone line, cableway or ski lift.	516 517
5.7		Tunnel	A way under roads, railways, etc.	518
5.8		Stone wall	A stone boundary wall or stone faced bank.  Used with symbol 8.11 to indicate a ruined stone wall.	519- 521

Ref.	Symbol	Name	Description	ISOM
5.9		Fence	A wire or wooden boundary. Used with symbol 8.11 to indicate a ruined fence.	522-524
5.10		Crossing point	A way through or over a wall, fence, or pipeline, including a gate or stile.	525
5.11		Building	A standing brick, wood or stone structure.	526
5.12		Paved area	An area of hard standing used for parking or other purposes.	529
5.13		Ruin	The remains of a building that has fallen down.	530
5.14		Pipeline	A pipeline (gas, water, oil, etc.) above ground level.	533 534
5.15		Tower	A tall metal, wooden or brick structure, usually built for forest observation.	535 536
5.16		Shooting platform	A structure attached to a tree where a marksman or observer can sit.	536
5.17		Boundary stone, Cairn	A man made stone or pile of stones. A cairn, memorial stone, boundary stone or trigonometric point.	537
5.18		Fodder rack	A construction for holding feed for animals.	538
5.19		Charcoal burning ground	The clear remains of an area where charcoal was burned. A small level man made area on a slope. (A platform).	
5.20		Monument or Statue	A monument, memorial or statue.	
5.23		Building pass through	An arcade, indoor passage or route through a building.	852
5.24		Stairway	A stairway of at least two steps.	862

## Special features












Ref.	Symbol	Name	Description
6.1		Special item	If used, an explanation of its meaning must be supplied to competitors in the pre-race information.
6.2		Special item	If used, an explanation of its meaning must be supplied to competitors in the pre-race information.

## Country Specific features

It is not generally recommended to introduce local symbols. If local symbols are used then at events likely to attract an international entry information about them should be supplied to competitors in the pre-race details.

Ref.	Symbol	Name	Description
7.n		Name	Description of feature.

## Column E - Appearance



Ref.	Symbol	Name	Description
8.1		Low	Where the control feature is particularly low or flat but this is not indicated on the map; e.g. Hill, low.
8.2		Shallow	Where the control feature is particularly shallow but this is not indicated on the map; e.g. Re-entrant, shallow.
8.3		Deep	Where the control feature is particularly deep but this is not indicated on the map; e.g. Pit, deep.
8.4		Overgrown	Where the feature is partially covered in undergrowth or bushes that are not indicated on the map; e.g. Ruin, overgrown.
8.5		Open	Where the feature is in an area where the tree cover is less than the surroundings but this is not indicated on the map; e.g. Marsh, open.
8.6		Rocky, Stony	Where the feature is in an area of rocky or stony ground not indicated on the map; e.g. Pit, rocky.
8.7		Marshy	Where the feature is in an area of marshy ground not indicated on the map; e.g. Re-entrant, marshy.
8.8		Sandy	Where the feature is in an area of sandy ground not indicated on the map; e.g. Spur, sandy.
8.9		Needle leaved	Where the tree or trees associated with the control feature have needle shaped leaves; e.g. Distinctive tree, needle leaved.
8.10		Broad leaved	Where the tree or trees associated with the control feature are broad-leaved; e.g. Copse, broad leaved.
8.11		Ruined	Where the feature has fallen to ground level; e.g. Fence, ruined.

## Column F – Dimensions / Combinations













### Dimensions

Ref.	Symbol	Name	Description
9.1	2.5	Height or Depth	Height or Depth of the feature in metres.
9.2	8 x 4	Size	Horizontal dimensions of the feature in metres.
9.3	$\frac{0.5}{3.0}$	Height on slope	Height of the feature on a slope in metres.
9.4	$\frac{2.0}{3.0}$	Heights of two features	Heights of two features with the control between them.

### Combinations










Ref.	Symbol	Name	Description
10.1		Crossing	The point at which two linear features cross.
10.2		Junction	The point at which two linear features meet.







When either of these symbols are used in Column F the two features which either cross or meet must be shown in columns D and E. For example:

D	E	F		
			Path crossing	The point at which two similar linear features cross.
			Ride / River crossing	The point at which two different linear features cross.
			Road junction	The point at which two similar linear features meet.
			River / Narrow marsh junction	The point at which two different linear features meet.







## Column G - Location of the control flag

Note: No symbol is required to describe the location of the control flag in relation to the feature if the control flag is positioned at, or as near as possible to, the centre of the feature (or the centre of the foot in the case of the cliff).





Ref.	Symbol	Name	Description
11.1		North east Side	Used where the feature extends above the surface of the ground; e.g. Boulder, north east side; Ruin, west side.
11.2		South east Edge	Used where: a) The feature extends down from the surface of the surrounding ground and the control is situated on the edge at ground level; e.g. Depression, south east edge. b) The feature extends over a significant area and the control is situated on the border of that area; e.g. Marsh, west edge; Clearing, north west edge.
11.3		West Part	Used where the feature extends over a significant area and the control is located neither at the centre, nor on any of the edges; e.g. Marsh, west part; Depression, south east part.
11.4		East Corner (inside)	Used where: a) The edge of a feature turns through an angle of 45-135 degrees; e.g. Open land, east corner (inside); Ruin, north west corner (outside). b) A linear feature turns a corner; e.g. Fence, south corner (inside); Stone wall, south west corner (outside).
11.5		South Corner (outside)	The orientation of the symbol indicates the direction in which the corner points.
11.6		South west Tip	Used where the edge of a feature turns through an angle of less than 45 degrees; e.g. Marsh, south west tip.
11.7		Bend	Used where a linear feature makes a smooth change of direction; e.g. Path bend; River bend.
11.8		North west End	The point at which a linear feature ends or starts; e.g. Ride, north west end; Stone wall, south end.
11.9		Upper Part	Where the feature extends over two or more contours and the control is located near the top; e.g. Erosion Gully, upper part.

Ref.	Symbol	Name	Description
11.10		Lower Part	Where the feature extends over two or more contours and the control is located near the bottom; e.g. Re-entrant, lower part.
11.11		Top	Where the control is located at the highest point of the feature and this is not the usual location; e.g. Cliff, top.
11.12		Beneath	Where the control is located underneath the feature; e.g. Pipeline, beneath.
11.13		Foot (no direction)	Where the control is located at the lower junction of the slope of the feature and the surface of the surrounding area; e.g. Earth bank, foot.
11.14		North east Foot	As above, but where the feature is large enough for the control to be placed in more than one location around it; e.g. Hill, north east foot.
11.15		Between	Where the control is located between two features; e.g. Between thickets; Between boulder and knoll.

When symbol 11.15 'Between' is used in Column G, the two features which the control is between must be shown separately in columns D and E. For example:

D	E	F	G		
				Between thickets	The point between two similar features.
				Between boulder and knoll	The point between two different features.

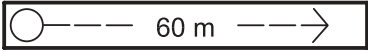
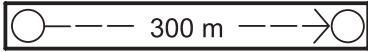
## Column H - Other information

Ref.	Symbol	Name	Description
12.1		First aid post	Control site where First aid is available.
12.2		Refreshment point	Control site where Refreshments are available.
12.3		Radio or TV control	Location of a Radio or TV control.
12.4		Control check	Manned control site where the control card is checked.


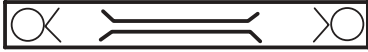
## Special Instructions

Special instructions may be given to the competitors within the body of the description sheet. These should be used to re-emphasise what is shown on the map.

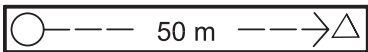
If a marked route is to be followed away from a particular control, or between controls:

Ref.	Symbol	Name/Description
13.1		Follow Taped Route, 60m away from control.
13.2		Follow Taped Route, 300m between controls.

If there are mandatory crossing points or routes between two controls:


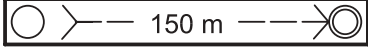
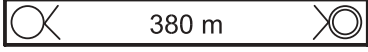
Ref.	Symbol	Name/Description
13.3		Mandatory crossing point or points.
13.4		Mandatory passage through out of bounds area.

At a map exchange, or if a marked route is to be followed from a control to a map exchange, it should follow the last control description of the first part of the course as follows:

Ref.	Symbol	Name/Description
13.5		Follow Taped Route, 50m to Map Exchange.

## Nature of route from the last control to the Finish

Following the final description, the nature of the route from the last control to the finish is indicated by one of the following:

Ref.	Symbol	Name/Description
14.1		400m from last control to Finish. Follow taped route.
14.2		150m from last control to Finish. Navigate to finish funnel, then follow tapes.
14.3		380m from last control to Finish. Navigate to finish. No tapes.

# Specifications for Trail Orienteering

There are two variations in the use of the columns when using IOF Control Descriptions for Trail Orienteering.

## Column B - Number of control flags

This column is used to denote the number of control flags visible at this control; e.g. A-C equals three control flags to choose from; A-D equals four control flags to choose from.

## Column H - Direction of observation

This column is used to denote the direction in which to view a feature. For example an arrow pointing north indicates that the competitor should be on a path/track to the south of the control circle.

## Example

A	B	C	D	E	F	G	H
1	A-D		○			○ <sup>•</sup>	↑





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