

School of Library and Information Science, Simmons University

Sarah Yasuda
Metadata - LIS 445
Professor Pomerantz
Schema Documentation - RCDS (Rock Climbing Description Schema)

RCDS | Rock Climbing Description Schema

Creator: Sarah Yasuda

Date: 5 April 2020

Overview

This document is a specification of all terms in the Rock Climbing Description Schema (RCDS), including elements and sub-elements, vocabulary encoding schemes, syntax encoding schemes, and terms from the RCDS Type Vocabulary. The RCDS is specifically catered to capture metadata on climbing routes. This schema is designed to capture information on various rock climbing routes, both indoors and outdoors.

The elements will allow for accurate and thorough descriptions of climbing routes including route name, location, number of bolts and holds, required gear, and climbing styles. Also included is the RCDS Type Vocabulary, a list of rock climbing terminologies intended to accurately describe climbing routes using the RCDS element and sub-element namespaces. This documentation includes definitions, directions in implementation, and best practices for the listed RCDS elements, sub-elements, vocabulary encoding schemes, and syntax encoding schemes.

Index

Terms for Elements	beta, bolts, climbingType, climbingStyle, creator, description, facility, firstAscent, gear, grade, holds, location, routeName, routeHeight, temporal
Terms for Sub-elements	ascentClimber, ascentDare, ascentStyle, betaCreator, betaDate, betdaDescription, boltsDate, boltsDescription, boltsNum, creatorDate, creatorDescription, creatorName, facilityAddress, facilityName, gearDescription, gearName, holdsDate, holdsColor, holdsNum, locationDescription, locationCoordinates
Vocabulary Encoding Scheme	fontScale, rdcsVocabulary, yosemiteDecimalSystem, vScale
Syntax Encoding Scheme	ISO-6709, ISO-8601, DCMIperiod
RCDS Type Vocabulary	aid climbing, belay device, carabiner, climbing chalk, climbing shoes, crash pad, harness, ice boots, ice climbing, ice tools, indoor climbing, lead climbing, outdoor, climbing, rope, speed climbing, sport climbing, top roping, trad climbing

Elements

Term Name: beta

Label:	Beta
Definition:	Tips and advice for ascending the climbing route.
Comment:	Beta is a climbing terminology that encompasses information about a climb. This includes information about a climb's difficulty, style, length, quality of rock, and specific information about hand or foot holds. Beta can be different depending on the climber's skill and body type.

Type of Term:	Sub-element
Implementation: (Mandatory/Optional/ Repeatable)	Optional, Repeatable
Sub-element of:	betaCreator, betaDescription

Term Name: bolts

Label:	Bolts
Definition:	Bolts on a climbing route.
Comment:	A bolt is a permanent anchor fixed into a hole drilled into the rock as a form of protection. A bolt hanger is a combination of a fixed bolt and a specialized stainless steel hanger designed to accept a carabiner.
Type of Term:	Element
Implementation: (Mandatory/Optional/ Repeatable)	Optional
Sub-element(s):	boltsDate, boltsDescription, boltsNum

Term Name: climbingType

Label:	Climbing Type
Definition:	A form of climbing in which the climbing route would be categorized.
Comment:	Must use either <i>indoor</i> or <i>outdoor</i> as value types from the RCDA Type Vocabulary for this element.
Type of Term:	Element

Implementation: (Mandatory/Optional/ Repeatable)	Mandatory
Sub-element(s):	None

Term Name: climbingStyle

Label:	Climbing Style
Definition:	A style of climbing that the climbing route requires or demands.
Comment:	Recommended practice is to use the RCDA Type Vocabulary. Common value types include <i>bouldering</i> , <i>top roping</i> , and <i>lead climbing</i> .
Type of Term:	Element
Implementation: (Mandatory/Optional/ Repeatable)	Mandatory, Repeatable
Sub-element(s):	None

Term Name: creator

Label:	Creator
Definition:	The name of the entity responsible for creating the climbing route.
Comment:	Examples of a Creator include a person or an organization. This can include individuals that created the routes themselves and indoor climbing gyms that implemented new holds.
Type of Term:	Element
Implementation: (Mandatory/Optional/ Repeatable)	Optional
Sub-element(s):	creatorDate, creatorDescription, creatorName

Term Name: description

Label:	Description
Definition:	A free-text account of the climbing route.
Comment:	Description is used as a free-text account of the climbing route. This may include an account of the history and other relevant accounts pertaining to the route.
Type of Term:	Element
Implementation: (Mandatory/Optional/ Repeatable)	Optional
Sub-element(s):	None

Term Name: facility

Label:	Facility
Definition:	The facility in which the climbing route is located.
Comment:	This can include the name of a climbing gym, an identifiable name for a specified location, and an organization.
Type of Term:	Element
Implementation: (Mandatory/Optional/ Repeatable)	Optional
Sub-element(s):	facilityAddress, facilityName

Term Name: firstAscent

Label:	First Ascent
Definition:	A date of the first successful ascent (climb) on the route.
Comment:	Recommended practice is to use the ISO 8601 standard.
Type of Term:	Element
Implementation: (Mandatory/Optional/ Repeatable)	Optional, Repeatable
Sub-element(s):	ascentClimber, ascentStyle, ascentDate

Term Name: gear

Label:	Gear
Definition:	Type of equipment, footwear and accessories required for the climbing route.
Comment:	Recommended practice is to use the RCDS Type Vocabulary.
Type of Term:	Element
Implementation: (Mandatory/Optional/ Repeatable)	Mandatory
Sub-element(s):	gearDescription, gearName

Term Name: grade

Label:	Grade
Definition:	A grading that marks the difficulty of the climbing route.
Comment:	Recommended practice is to use a standardized climbing grading scale. This includes the available vocabulary encoding schemes in

	this documentation - the V-scale, Font Scale, or the Yosemite Decimal System depending on the Climbing Style element.
Type of Term:	Element
Implementation: (Mandatory/Optional/ Repeatable)	Mandatory, Repeatable
Sub-element(s):	None

Term Name: holds

Label:	Holds
Definition:	The holds on the climbing route.
Comment:	Holds are a standard climbing terminology to describe a shaped grip attached to a climbing wall so that climbers can grab or step on it.
Type of Term:	Element
Implementation: (Mandatory/Optional/ Repeatable)	Optional
Sub-element(s):	holdsDate, holdsColor, holdsNum

Term Name: location

Label:	Location
Definition:	The location of the climbing route.
Comment:	This includes postal addresses and other geographic identifiers that will specify the location of the climbing route.
Type of Term:	Element
Implementation: (Mandatory/Optional/ Repeatable)	Mandatory

Sub-element(s):	locationDescription, locationCoordinates
-----------------	--

Term Name: routeName

Label:	Route Name
Definition:	The name of the climbing route.
Comment:	Oftentimes indoor climbing gyms only have grading levels but do not have designated names.
Type of Term:	Element
Implementation: (Mandatory/Optional/ Repeatable)	Optional
Sub-element(s):	None

Term Name: routeHeight

Label:	Route Height
Definition:	The height of the climbing route.
Comment:	Recommended practice is to use an official measurement system.
Type of Term:	Element
Implementation: (Mandatory/Optional/ Repeatable)	Optional
Sub-element(s):	None

Term Name: temporal

Label:	Temporal
--------	----------

Definition:	The temporal range for optimal and/or accessible climbing for the route.
Comment:	<p>This will be expressed in a month-to-month range to express the most optimal time to climb the route. Recommended practice is to use the DCMI Period Encoding Scheme.</p> <p>For indoor climbing locations that are not affected by seasons and weather considerations, expressing the entire year by using January and December as value types or using other values such as <i>year-round</i> will suffice.</p>
Type of Term:	Element
Implementation: (Mandatory/Optional/ Repeatable)	Mandatory
Sub-element(s):	None

Sub-Elements

Term Name: ascentClimber

Label:	Ascent Climber
Definition:	An entity responsible for completing the first ascent on the climbing route.
Type of Term:	Sub-element
Implementation: (Mandatory/Optional/ Repeatable)	Optional, Repeatable
Sub-element of:	firstAscent

Term Name: ascentDate

Label:	Ascent Date
Definition:	A date of the first successful ascent (climb) on the route.
Comment:	Recommended practice is to use the ISO 8601 standard.
Type of Term:	Sub-element
Implementation: (Mandatory/Optional/ Repeatable)	Optional
Sub-element of:	firstAscent

Term Name: ascentStyle

Label:	Ascent Style
Definition:	The form of climbing style in which the climber successfully completed the first ascent of the route.
Comment:	Recommended practice is to use the RCDA Type Vocabulary. Most common value types are <i>bouldering</i> , <i>top roping</i> , and <i>lead climbing</i> .
Type of Term:	Sub-element
Implementation: (Mandatory/Optional/ Repeatable)	Optional, Repeatable
Sub-element of:	firstAscent

Term Name: betaCreator

Label:	Beta Creator
Definition:	The entity responsible for creating the beta of the climbing route.
Type of Term:	Sub-element
Implementation: (Mandatory/Optional/ Repeatable)	Optional, Repeatable
Sub-element of:	beta

Term Name: betaDate

Label:	Beta Date
Definition:	The date on which the beta was added to the climbing route record.
Comment:	Recommended practice is to use ISO 8601.
Type of Term:	Sub-element

Implementation: (Mandatory/Optional/ Repeatable)	Optional, Repeatable
Sub-element of:	beta

Term Name: betaDescription

Label:	Beta Description
Definition:	A free-text account of the beta for the climbing route.
Type of Term:	Sub-element
Implementation: (Mandatory/Optional/ Repeatable)	Optional, Repeatable
Sub-element of:	beta

Term Name: boltsDate

Label:	Bolts Date
Definition:	The date on which bolts were installed for the climbing route.
Comment:	Recommended practice is to use ISO 8601.
Type of Term:	Sub-element
Implementation: (Mandatory/Optional/ Repeatable)	Optional
Sub-element of:	bolts

Term Name: boltsDescription

Label:	Bolts Description
Definition:	A free-text account of the bolts installed for the climbing route.
Comment:	This includes information about the type of bolts used, material, and planning and installation process.
Type of Term:	Sub-element
Implementation: (Mandatory/Optional/ Repeatable)	Optional
Sub-element of:	bolts

Term Name: boltsNum

Label:	Bolts Number
Definition:	The number of holds on the climbing route.
Comment:	Recommended practice is to use ISO 8601 and the DCMI period encoding scheme. bbsfdnn
Type of Term:	Sub-element
Implementation: (Mandatory/Optional/ Repeatable)	Optional
Sub-element of:	bolts

Term Name: creatorDate

Label:	Creator Date
Definition:	The date on which the climbing route was created.
Comment:	Recommended practice is to use ISO 8601.
Type of Term:	Sub-element
Implementation: (Mandatory/Optional/ Repeatable)	Optional
Sub-element of:	creator

Term Name: creatorDescription

Label:	Creator Description
Definition:	A free-text account of the creator.
Comment:	This can include information about the creator and the process in which the climbing route was created.
Type of Term:	Sub-element
Implementation: (Mandatory/Optional/ Repeatable)	Optional
Sub-element of:	creator

Term Name: creatorName

Label:	Creator Name
Definition:	The name of the entity responsible for creating the climbing route.
Comment:	Examples of a Creator include a person or an organization. This can include individuals that created the routes themselves and indoor climbing gyms that implemented new holds.

Type of Term:	Sub-element
Implementation: (Mandatory/Optional/ Repeatable)	Optional, Repeatable
Sub-element of:	creator

Term Name: facilityAddress

Label:	Facility Address
Definition:	The postal address for the facilityName element.
Type of Term:	Sub-element
Implementation: (Mandatory/Optional/ Repeatable)	Optional
Sub-element of:	facility

Term Name: facilityName

Label:	Facility Name
Definition:	The facility in which the climbing route is located.
Comment:	This can include the name of a climbing gym, an identifiable name for a specified location, and an organization.
Type of Term:	Sub-element
Implementation: (Mandatory/Optional/ Repeatable)	Optional
Sub-element of:	facility

Term Name: gearDescription

Label:	Gear Description
Definition:	A free-text account of the type of gear needed for the climbing route.
Comment:	Recommended practice is to include this sub-element as a supplement to the Gear element. Can be used to include granular information on climbing shoe type, rope type, and other equipment information.
Type of Term:	Sub-element
Implementation: (Mandatory/Optional/ Repeatable)	Optional, Repeatable
Sub-element of:	gear

Term Name: gearName

Label:	Gear Name
Definition:	The name of the type of equipment, footwear and accessories required for the climbing route.
Comment:	Recommended practice is to use the RCDS Type Vocabulary.
Type of Term:	Sub-element
Implementation: (Mandatory/Optional/ Repeatable)	Optional, Repeatable
Sub-element of:	gear

Term Name: holdsDate

Label:	Holds Date
Definition:	The date on which the climbing route was created.
Comment:	Recommended practice is to use ISO 8601 and the DCMI period encoding scheme. bfsfdnn
Type of Term:	Sub-element
Implementation: (Mandatory/Optional/ Repeatable)	Optional
Sub-element of:	holds

Term Name: holdsColor

Label:	Holds Color
Definition:	The color of the holds on the climbing route.
Comment:	Typically applicable for indoor climbing routes with holds.
Type of Term:	Sub-element
Implementation: (Mandatory/Optional/ Repeatable)	Optional, Repeatable
Sub-element of:	holds

Term Name: holdsNum

Label:	Holds Number
Definition:	The number of holds on the climbing route.
Comment:	Recommended practice is to use ISO 8601 and the DCMI period encoding scheme. bfsfdnn

Type of Term:	Sub-element
Implementation: (Mandatory/Optional/ Repeatable)	Optional
Sub-element of:	holds

Term Name: locationDescription

Label:	Location Description
Definition:	A free-text account of the location of the climbing route.
Comment:	This can be used for textual descriptions of the location including postal addresses and specific climbing routes within climbing gyms and rock features in outdoor settings.
Type of Term:	Sub-element
Implementation: (Mandatory/Optional/ Repeatable)	Optional, Repeatable
Sub-element of:	location

Term Name: locationCoordinates

Label:	Location Coordinates
Definition:	The geographic coordinates of the climbing route.
Comment:	Recommended practice is to use ISO 6709
Type of Term:	Sub-element
Implementation: (Mandatory/Optional/ Repeatable)	Optional
Sub-element of:	location

Vocabulary Encoding Scheme

Term Name: fontScale

URI:	https://www.99boulders.com/bouldering-grades
Label:	Font Scale (Fontainebleau Scale)
Definition:	The predominant bouldering grading scale in Europe. The scale starts at 1 and then progresses upwards, also adding suffixes to the number to indicate changes in difficulty.
Type of Term:	Vocabulary Encoding Scheme

Term Name: rcdsVocabulary

Label:	RCDS Type Vocabulary
Definition:	The set of terminologies specified by the RCDS Type Vocabulary, used to categorize and describe climbing routes.
Type of Term:	Vocabulary Encoding Scheme

Term Name: yosemiteDecimalSystem

URI:	https://climber.org/data/decimal.html
Label:	Yosemite Decimal System
Definition:	A three-part grading system used for rating the difficulty of walks, hikes, and climbs, primarily used by mountaineers in the United States and Canada.
Type of Term:	Vocabulary Encoding Scheme

Term Name: vScale

URI:	https://www.99boulders.com/bouldering-grades
Label:	V-Scale
Definition:	The predominant bouldering grading scale in North America. The scale starts at V0 and currently goes all the way up to V17. There is also a level called VbB - B standing for "basic" or "beginner" that is easier than V0.
Type of Term:	Vocabulary Encoding Scheme

Syntax Encoding Scheme**Term Name: ISO-6709**

URI:	https://www.iso.org/standard/39242.html
Label:	ISO 6709
Definition:	The International Standard for the representation of latitude, longitude and altitude for geographic point locations.
Type of Term:	Syntax Encoding Scheme

Term Name: ISO-8601

URI:	https://www.iso.org/iso-8601-date-and-time-format.html
Label:	ISO 8601
Definition:	The International Standard for the representation of dates and times. It follows the YYYY-MM-DD format.
Type of Term:	Syntax Encoding Scheme

Term Name: DCMIperiod

URI:	https://www.dublincore.org/specifications/dublin-core/dcmi-period/
Label:	DCMI Period Encoding Scheme
Definition:	Encoding scheme that indicates a time interval. It includes a name label for the interval and an interval start and interval end label.
Type of Term:	Syntax Encoding Scheme

RCDS Type Vocabulary**Term Name: aid climbing**

Definition:	A style of climbing in which the climber stands up on or pulls themselves up via devices attached to fixed or placed protection to make upward progress.
Usable for following elements/sub-elements:	climbingStyle, ascentStyle
Type of Term:	RCDS Type Vocabulary

Term Name: belay device

Definition:	A mechanical piece of climbing equipment used to control a rope during belaying.
Usable for following elements/sub-elements:	gear
Type of Term:	RCDS Type Vocabulary

Term Name: bouldering

Definition:	A style of rock climbing that is performed on small rock formations or artificial rock walls without the use of ropes or harnesses.
Usable for following elements/sub-elements:	climbingStyle, ascentStyle
Type of Term:	RCDS Type Vocabulary

Term Name: carabiner

Definition:	A typically D-shaped or oblong metal ring with one spring-hinged side that is used especially in mountain climbing as a connector and to hold a freely running rope.
Usable for following elements/sub-elements:	gear
Type of Term:	RCDS Type Vocabulary

Term Name: climbing chalk

Definition:	A type of chalk made of magnesium that removes moisture from hands and increases friction between the skin and the object the climber holds on.
Usable for following elements/sub-elements:	gear
Type of Term:	RCDS Type Vocabulary

Term Name: climbing shoes

Definition:	A specialized type of footwear designed for rock climbing.
Usable for following elements/sub-elements:	gear
Type of Term:	RCDS Type Vocabulary

Term Name: crampons

Definition:	A traction device that is attached to footwear to improve mobility on snow and ice during ice climbing.
Usable for following elements/sub-elements:	gear
Type of Term:	RCDS Type Vocabulary

Term Name: crash pad

Definition:	Also known as a “bouldering mat”, it is a foam pad used for protection when bouldering.
Usable for following elements/sub-elements:	gear
Type of Term:	RCDS Type Vocabulary

Term Name: harness

Definition:	An item of climbing equipment requiring the use of ropes to provide access or safety. A harness can be made from a length of rope or a nylon webbing tied round the waist.
Usable for following elements/sub-elements:	gear
Type of Term:	RCDS Type Vocabulary

Term Name: ice boots

Definition:	Mountaineering boots used for ice climbing.
Usable for following elements/sub-elements:	gear
Type of Term:	RCDS Type Vocabulary

Term Name: ice climbing

Definition:	A style of climbing that is performed on ice formations. This includes ascends on alpine ice and water ice.
Usable for following elements/sub-elements:	climbingStyle, ascentStyle
Type of Term:	RCDS Type Vocabulary

Term Name: ice tools

Definition:	A specialized ice axe used in ice climbing.
Usable for following elements/sub-elements:	gear
Type of Term:	RCDS Type Vocabulary

Term Name: indoor climbing

Definition:	A climbing activity that is done indoors.
Usable for following elements/sub-elements:	climbingType
Type of Term:	RCDS Type Vocabulary

Term Name: lead climbing

Definition:	A climbing style in which a roped party one climber has to take the lead while the other climbers follow. The lead climber wears a harness attached to a climbing rope, which in turn is connected to the other climbers below the lead climber.
Usable for following elements/sub-elements:	climbingStyle, ascentStyle
Type of Term:	RCDS Type Vocabulary

Term Name: outdoor climbing

Definition:	A climbing activity that is done outdoors.
Usable for following elements/sub-elements:	climbingType
Type of Term:	RCDS Type Vocabulary

Term Name: rope

Definition:	A rope used in climbing. The two main types of ropes are dynamic and static.
Usable for following elements/sub-elements:	gear
Type of Term:	RCDS Type Vocabulary

Term Name: speed climbing

Definition:	A style of climbing in which speed is the ultimate goal.
Usable for following elements/sub-elements:	climbingStyle, ascentStyle
Type of Term:	RCDS Type Vocabulary

Term Name: sport climbing

Definition:	A style of climbing in which the climber may rely on permanent anchors fixed to the rock for protection, in which a rope that is attached to the climber is clipped into the anchors to arrest a fall, or that involves climbing short distances with a crash pad underneath as protection.
Usable for following elements/sub-elements:	climbingStyle, ascentStyle
Type of Term:	RCDS Type Vocabulary

Term Name: top roping

Definition:	A style of climbing in which the climber is securely attached to a rope which then passes up, through an anchor system at the top of the climb, and down to a belayer at the foot of the climb.
Usable for following elements/sub-elements:	climbingStyle, ascentStyle
Type of Term:	RCDS Type Vocabulary

Term Name: trad climbing

Definition:	A style of climbing in which a climber or group of climbers place all gear required to protect against falls, and remove it when a pitch is complete.
Usable for following elements/sub-elements:	climbingStyle, ascentStyle
Type of Term:	RCDS Type Vocabulary