DataONE Content Indexer Documentation

Release 2.3.3

DataONE

Aug 07, 2020

Contents

These documents are generated from the configuration information contained in the projects `dataone-cn-solr` amd `d1_cn_index_processor` which provide configuration for the solr index and metadata parsers respectively.

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Index Configuration

Solr Index Fields

A list of the fields defined in the solr search index used by the Coordinating Nodes.

These fields are populated by the index processor using values drawn from `Types.SystemMetadata`, Science Metadata, and Resource Map documents.

Note: For Editors

Definitions are drawn from the solr configuration file and descriptions for each field are contained in a separate properties file (`dataone-cn-solr/usr/share/dataone-cn-solr/debian/queryFieldDescriptions.properties`). After editing descriptions, the document source must be regenerated and committed to GitHub for the public facing documentation to be updated.

1.1 Static Fields

Field	Type	MV	Store	Index	Description
`Index.__root__`	string	False	False	True	
`Index.__version__`	long	False	True	True	
`Index.abstract`	text_general	False	True	True	The full text of the abstract as provided in the science metadata document.
`Index.attribute`	text_general	True	True	True	Multi-valued field containing the text from attributeName, attributeLabel, attributeDescription, attributeUnit fields into a single searchable text field.

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Field	Type	MV	Store	Index	Description
Index.**attributeDescription**	text_general	True	True	True	Multi-valued field containing the attribute descriptive text.
Index.**attributeLabel**	string	True	True	True	Multi-valued field containing secondary attribute name information.
Index.**attributeName**	string	True	True	True	Multi-valued field containing the main attribute name information.
Index.**attributeUnit**	string	True	True	True	Multi-valued field containing the attribute unit information.
Index.**author**	string	False	True	True	Principle Investigator (PI) / Author as listed in the metadata document.
Index.**authorGivenName**	string	False	True	True	The given name of the primary author/PI.
Index.**authorGivenNameSort**	alphaOnlySort	False	True	True	The given name of the primary author/PI case normalized for sorting.
Index.**authoritativeMN**	string	False	True	True	The node Id of the authoritative Member Node for the object.
Index.**authorLastName**	string	True	True	True	The LAST name(s) of the author(s)
Index.**authorSurName**	string	False	True	True	The sur name of the primary author/PI.
Index.**authorSurNameSort**	alphaOnlySort	False	True	True	The sur name of the primary author/PI case normalized for sorting.
Index.**awardNumber**	string	True	True	True	
Index.**awardNumber**	string	True	True	True	
Index.**awardTitle**	string	True	True	True	
Index.**awardTitle**	string	True	True	True	
Index.**beginDate**	tdate	False	True	True	The starting date of the temporal range of the content described by the metadata document.

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Field	Type	MV	Store	Index	Description
Index.**blockedReplicationMN**	string	True	True	False	A multi-valued field that contains the node Ids of member nodes that are blocked from holding replicas of this object.
Index.**changePermission**	string	True	True	True	List of subjects (groups and individuals) that have change permission on PID.
Index.**checksum**	string	False	True	False	The checksum for the object
Index.**checksumAlgorithm**	string	False	True	False	Algorithm used for generating the object checksum
Index.**class**	string	True	True	True	Taxonomic class name(s)
Index.**contactOrganization**	string	True	True	True	Name of the organization to contact for more information about the dataset
Index.**contactOrganizationText**	text_general	True	False	True	Copy from contactOrganization
Index.**datasource**	string	False	True	True	The node Id of the member node that originally contributed the content.
Index.**dataUrl**	string	False	True	False	The URL that can be used to resolve the location of the object given its PID.
Index.**dateModified**	tdate	False	True	True	The date and time when the object system metadata was last updated.
Index.**datePublished**	tdate	False	True	True	Publication date for the dataset (this may or may not be coincident with when the content is added to DataONE).
Index.**dateUploaded**	tdate	False	True	True	The date and time when the object was uploaded to the Member Node.
Index.**decade**	string	False	True	True	The latest decade that is covered by the dataset, expressed in the form "1999-2009"
Index.**documents**	string	True	True	True	Lists all PIDs that this object describes. Obtained by parsing all resource maps in which this object is referenced. Not set for data or resource map objects.
Index.**eastBoundCoord**	tfloat	False	True	True	Eastern most longitude of the spatial extent, in decimal degrees, WGS84
Index.**edition**	text_general	False	True	True	The version or edition number of the item described.

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Field	Type	MV	Store	Index	Description
Index.**endDate**	tdate	False	True	True	The ending date of the temporal range of the content described by the metadata document.
Index.**family**	string	True	True	True	Taxonomic family name(s)
Index.**fileID**	string	False	True	True	Contains the *CNRead.resolve* URL for the object ONLY if the object is a science metadata object.
Index.**fileName**	string	False	True	True	The file name for the object, specified in system metadata field with the same name.
Index.**formatId**	string	False	True	True	The format identifier indicating the type of content this record refers to.
Index.**formatType**	string	False	True	True	The format type of the record - DATA, METADATA, RE-SOURCE.
Index.**funderIdentifier**	string	True	True	True	
Index.**funderIdentifier**	string	True	True	True	
Index.**funderName**	string	True	True	True	
Index.**funderName**	string	True	True	True	
Index.**funding**	string	True	True	True	
Index.**funding**	string	True	True	True	
Index.**fundingText**	text_general	True	False	True	
Index.**fundingText**	text_general	True	False	True	
Index.**gcmdKeyword**	text_general	True	True	True	Keywords drawn from the GCMD controlled vocabulary
Index.**genus**	string	True	True	True	Taxonomic genus name(s)

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Field	Type	MV	Store	Index	Description
Index.**geoform**	string	False	True	True	The name of the general form in which the item's geospatial data is presented
Index.**geohash_1**	text_general	True	True	True	An encoded string that represents the geographic coordinates of the centroid of a spatial extent. This can be used for searching and plotting.
Index.**geohash_2**	text_general	True	True	True	An encoded string that represents the geographic coordinates of the centroid of a spatial extent. This can be used for searching and plotting.
Index.**geohash_3**	text_general	True	True	True	An encoded string that represents the geographic coordinates of the centroid of a spatial extent. This can be used for searching and plotting.
Index.**geohash_4**	text_general	True	True	True	An encoded string that represents the geographic coordinates of the centroid of a spatial extent. This can be used for searching and plotting.
Index.**geohash_5**	text_general	True	True	True	An encoded string that represents the geographic coordinates of the centroid of a spatial extent. This can be used for searching and plotting.
Index.**geohash_6**	text_general	True	True	True	An encoded string that represents the geographic coordinates of the centroid of a spatial extent. This can be used for searching and plotting.
Index.**geohash_7**	text_general	True	True	True	An encoded string that represents the geographic coordinates of the centroid of a spatial extent. This can be used for searching and plotting.
Index.**geohash_8**	text_general	True	True	True	An encoded string that represents the geographic coordinates of the centroid of a spatial extent. This can be used for searching and plotting.
Index.**geohash_9**	text_general	True	True	True	An encoded string that represents the geographic coordinates of the centroid of a spatial extent. This can be used for searching and plotting.
Index.**id**	string	False	True	True	The identifier of the object being indexed.
Index.**identifier**	text_general	False	True	True	Copy id
Index.**investigator**	string	True	True	True	Name of the investigator(s) responsible for developing the dataset and associated content.
Index.**investigatorText**	text_general	True	False	True	Copy from investigator.
Index.**isDocumentedBy**	string	True	True	True	Lists all PIDs that describe this object. Obtained by parsing all resource maps in which this object is referenced.
Index.**isPublic**	boolean	False	True	True	Set to True if the DataONE *public user* is present in the list of subjects with readPermission on PID.

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Table 1 – continued from previous page

Field	Type	MV	Store	Index	Description
Index.**isService**	boolean	False	True	True	Set to true if document is a member node service description document. Use to filter search results for to exclude or include member node services.
Index.**isSpatial**	string	False	True	True	Set to "Y" for records that contain spatial information
Index.**keyConcept**	string	True	True	True	Terms drawn from a controlled vocabulary of concepts that are applicable to the content described by the metadata document.
Index.**keywords**	string	True	True	True	Keywords recorded in the science metadata document. These may be controlled by the generator of the metadata or by the metadata standard of the document, but are effectively uncontrolled within the DataONE context.
Index.**keywordsText**	text_general	True	False	True	Copy from keywords
Index.**kingdom**	string	True	True	True	Taxonomic kingdom(s)
Index.**LTERSite**	string	False	True	True	Data provider organization identifier, for sources within the LTER network.
Index.**mediaType**	string	False	True	True	The name attribute of the media type element in system metadata. Indicates media type of the object.
Index.**mediaTypeProperty**	string	True	True	True	A list of properties describing the media type in system metadata. The value is a concatenation of the property elements name attribute and the value of the property element.
Index.**namedLocation**	string	True	True	True	The name of the location(s) relevant to the content described by the metadata document.
Index.**noBoundingBox**	string	False	True	True	Set to "Y" if there is no bounding box information available (i.e., the east, west, north, south most coordinates)
Index.**northBoundCoord**	tfloat	False	True	True	Northern most latitude of the spatial extent, in decimal degrees, WGS84
Index.**numberReplicas**	int	False	True	False	Requested number of replicas for the object
Index.**obsoletedBy**	string	False	True	True	If set, indicates the object that replaces this record.
Index.**obsoletes**	string	False	True	True	If set, indicates the object that this record obsoletes.
Index.**ogcUrl**	text_general	False	True	False	URL for Open Geospatial Web service if available.

Table 1 – continued from previous page

Field	Type	MV	Store	Index	Description
Index.**order**	string	True	True	True	Taxonomic order name(s)
Index.**origin**	string	True	True	True	Investigator or Investigator organization name.
Index.**originator**	string	True	True	True	Investigator or Investigator organization name. Derived by normalizing origin.
Index.**originatorText**	text_general	True	False	True	
Index.**originText**	text_general	True	False	True	Copy from origin
Index.**parameter**	string	True	True	True	A characteristic, or variable, that is measured or derived as part of data-collection activities.
Index.**parameterText**	text_general	True	False	True	Copy from parameter
Index.**phylum**	string	True	True	True	Taxonomic phylum (or division) name(s)
Index.**placeKey**	text_general	True	True	True	A place name keyword, assigned by the metadata creator. It is one keyword from the thesaurus named in <placekt>
Index.**preferredReplicationMN**	string	True	True	False	A list of member node identifiers that are preferred replication targets for this object.
Index.**presentationCat**	string	False	True	True	Type of data being preserved (maps, text, etc.)
Index.**project**	string	False	True	True	The authorized name of a research effort for which data is collected. This name is often reduced to a convenient abbreviation or acronym. All investigators involved in a project should use a common, agreed-upon name.
Index.**projectText**	text_general	False	False	True	Copy from project
Index.**prov_generated**	string	True	True	True	A multi-valued field containing the identifiers of data objects that this program generated based on the PROV wasGeneratedBy, qualifiedAssociation, and hadPlan properties.
Index.**prov_generatedByExecution**	string	True	True	True	A multi-valued field containing the identifiers of the executions that this data object was generated by based on the PROV wasGeneratedBy property.
Index.**prov_generatedByProgram**	string	True	True	True	A multi-valued field containing the identifiers of the programs that this data object was generated by based on the PROV wasGeneratedBy, qualifiedAssociation, and hadPlan properties.

Table 1 – continued from previous page

Field	Type	MV	Store	Index	Description
Index.**prov_generatedByUser**	string	True	True	True	A multi-valued field containing the identifiers of the users that this data object was generated by based on the PROV wasGeneratedBy, qualifiedAssociation, and agent properties.
Index.**prov_hasDerivations**	string	True	True	True	A multi-valued field containing the identifiers of the data objects that were derivations of the source data object described by this metadata object, based on the PROV wasDerivedBy property.
Index.**prov_hasSources**	string	True	True	True	A multi-valued field containing the identifiers of the data objects that were sources to the derived data object described by this metadata object, based on the PROV wasDerivedBy property.
Index.**prov_instanceOfClass**	string	True	True	True	A multi-valued field containing the identifiers of the semantic classes that this object is an instance of, based on the PROV, ProvONE, and other ontologies.
Index.**prov_used**	string	True	True	True	A multi-valued field containing the identifiers of data objects that this program used based on the PROV used, qualifiedAssociation, and hadPlan properties.
Index.**prov_usedByExecution**	string	True	True	True	A multi-valued field containing the identifiers of the executions that used this data object based on the PROV used property.
Index.**prov_usedByProgram**	string	True	True	True	A multi-valued field containing the identifiers of the programs that used this data object based on the PROV used, qualifiedAssociation, and hadPlan properties.
Index.**prov_usedByUser**	string	True	True	True	A multi-valued field containing the identifiers of the users that used this data object based on the PROV used, qualifiedAssociation, and agent properties.
Index.**prov_wasDerivedFrom**	string	True	True	True	A multi-valued field containing the identifiers of data objects that this data object was derived from based on the PROV wasDerivedBy property.
Index.**prov_wasExecutedByExecution**	string	True	True	True	A multi-valued field containing the identifiers of the executions that used this program based on the PROV qualifiedAssociation, and hadPlan properties.
Index.**prov_wasExecutedByUser**	string	True	True	True	A multi-valued field containing the identifiers of the users that executed this program based on the PROV qualifiedAssociation, hadPlan, and agent properties.
Index.**prov_wasInformedBy**	string	True	True	True	A multi-valued field containing the identifiers of executions that this execution was informed by based on the PROV wasInformedBy property.
Index.**pubDate**	tdate	False	True	True	Publication date for the dataset (this may or may not be coincident with when the content is added to DataONE).
Index.**purpose**	text_general	False	True	True	The "Purpose" describes the "why" aspects of the data set (For example, why was the data set created?).
Index.**readPermission**	string	True	True	True	List of subjects (groups and individuals) that have read permission on PID.
Index.**relatedOrganizations**	string	True	True	True	

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Table 1 – continued from previous page

Field	Type	MV	Store	Index	Description
Index.**replicaMN**	string	True	True	True	One or more node Ids holding copies of the object.
Index.**replicationAllowed**	boolean	False	True	False	True if this object can be replicated.
Index.**replicaVerifiedDate**	tdate	True	True	False	
Index.**resourceMap**	string	True	True	True	List of resource map PIDs that reference this PID.
Index.**rightsHolder**	string	False	True	True	The *Subject* that acts as the rights holder for the object.
Index.**scientificName**	string	True	True	True	Taxonomic scientific name(s) at the most precise level available for the organisms of relevance to the dataset
Index.**sem_annotated_by**	string	True	True	True	
Index.**sem_annotates**	string	True	True	True	
Index.**sem_annotation**	string	True	True	True	
Index.**sem_comment**	string	True	True	True	
Index.**sensor**	string	True	True	True	Also called "instrument." A device that is used for collecting data for a data set.
Index.**sensorText**	text_general	True	False	True	Copy from sensor.
Index.**seriesId**	string	False	True	True	The seriesId is an optional, unique Unicode string that identifies an object revision chain.
Index.**serviceCoupling**	string	False	True	True	Either 'tight', 'mixed', or 'loose'. Tight coupled service work only on the data described by this metadata document. Loose coupling means service works on any data. Mixed coupling means service works on data described by this metadata document but may work on other data.
Index.**serviceDescription**	text_general	False	True	True	A human readable description of the member node service to assist discovery and to evaluate applicability.
Index.**serviceEndpoint**	string	True	True	True	A URL that indicates how to access the member node service.

Table 1 – continued from previous page

Field	Type	MV	Store	Index	Description
Index.**serviceInput**	string	True	True	True	Aspect of the service that accepts a digital entity. Either a list of DataONE formatIds Urls or pid RESOLVE Urls that the member node service operates on. A pid RESOLVE url indicates a 'tight' coupled service - while a list of formatIds indicates a loose coupled service.
Index.**serviceOutput**	string	True	True	True	Aspect of the service that provides a digital entity resulting from operation of the service. A listing of DataONE formatId which this member node service produces.
Index.**serviceTitle**	text_general	False	True	True	A brief, human readable descriptive title for the member node service.
Index.**serviceType**	string	True	True	True	The type of service being provided by the member node.
Index.**site**	string	True	True	True	The name or description of the physical location where the data were collected
Index.**siteText**	text_general	True	False	True	Copy from site.
Index.**size**	tlong	False	True	True	The size of the object, in bytes.
Index.**source**	string	True	True	True	Also called "platform." The mechanism used to support the sensor or instrument that gathers data
Index.**sourceText**	text_general	True	False	True	Copy from source.
Index.**southBoundCoord**	tfloat	False	True	True	Southern most latitude of the spatial extent, in decimal degrees, WGS84
Index.**species**	string	True	True	True	Taxonomic species name(s)
Index.**submitter**	string	False	True	True	The *Subject* name of the original submitter of the content to DataONE.
Index.**term**	string	True	True	True	A secondary subject area within which parameters can be categorized. Approved terms include "agricultural chemicals" and "atmospheric chemistry," among many others. When entering a term in the LandVal Metadata Editor, users should select a standard expression from the pick list for terms if at all possible.
Index.**termText**	text_general	True	False	True	Copy from term.
Index.**text**	text_en_splitting	False	True	True	Full text of the metadata record, used to support full text searches

Table 1 – continued from previous page

Field	Type	MV	Store	Index	Description
Index.**title**	text_general	False	True	True	Title of the dataset as recorded in the science metadata.
Index.**titlestr**	string	False	False	True	Copy from title.
Index.**topic**	string	True	True	True	The most general subject area within which a parameter is categorized. Approved topics include "agriculture," "atmosphere," and "hydrosphere," among others.
Index.**topicText**	text_general	True	False	True	Copy from topic.
Index.**updateDate**	tdate	False	True	True	Copy from dateuploaded.
Index.**webUrl**	string	True	True	False	Link to the investigator's web-site.
Index.**westBoundCoord**	tfloat	False	True	True	Western most longitude of the spatial extent, in decimal degrees, WGS84
Index.**writePermission**	string	True	True	True	List of subjects (groups and individuals) that have write permission on PID.

1.2 Dynamic Fields

Field	Type	MV	Store	Index	Description
*_b	boolean	False	True	True	
*_bm	boolean	True	True	True	
*_bs	boolean	True	True	True	
*_c	currency	False	True	True	
*_coordinate	tdouble	False	False	True	
*_d	double	False	True	True	
*_dm	tdouble	True	True	True	

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Table 2 – continued from previous page

Field	Type	MV	Store	Index	Description
*_ds	double	True	True	True	
*_dt	date	False	True	True	
*_dtm	tdate	True	True	True	
*_dts	date	True	True	True	
*_en	text_en	True	True	True	
*_f	float	False	True	True	
*_fm	tfloat	True	True	True	
*_fs	float	True	True	True	
*_i	int	False	True	True	
*_im	tint	True	True	True	
*_is	int	True	True	True	
*_l	long	False	True	True	
*_lm	tlong	True	True	True	
*_ls	long	True	True	True	
*_p	location	False	True	True	
*_s	string	False	True	True	

Table 2 – continued from previous page

Field	Type	MV	Store	Index	Description
*_sm	string	True	True	True	
*_ss	string	True	True	True	
*_t	text_general	False	True	True	
*_td	tdouble	False	True	True	
*_tdt	tdate	False	True	True	
*_tf	tfloat	False	True	True	
*_ti	tint	False	True	True	
*_tl	tlong	False	True	True	
*_tm	text_general	True	True	True	
*_txt	text_general	True	True	True	
attr_*	text_general	True	True	True	
ignored_*	ignored	True	False	False	
random_*	random	False	False	False	

Namespaces Referenced

A compilation of XML namespaces and their abbrievations used by the Index Parser.

Prefix	Namespace
d200	http://ns.dataone.org/service/types/v2.0
eml200	eml://ecoinformatics.org/eml-2.0.0
eml201	eml://ecoinformatics.org/eml-2.0.1
eml210	eml://ecoinformatics.org/eml-2.1.0
eml211	eml://ecoinformatics.org/eml-2.1.1
eml220	https://eml.ecoinformatics.org/eml-2.2.0
cito	http://purl.org/spar/cito/
dc	http://purl.org/dc/elements/1.1/
dcterms	http://purl.org/dc/terms/
dwc	http://rs.tdwg.org/dwc/terms/
foaf	http://xmlns.com/foaf/0.1/
ore	http://www.openarchives.org/ore/terms/
rdf	http://www.w3.org/1999/02/22-rdf-syntax-ns#
rdfs1	http://www.w3.org/2001/01/rdf-schema#
bibo	http://purl.org/ontology/bibo/
dryad	http://purl.org/dryad/terms/
datacite	http://datacite.org/schema/kernel-3
xsi	http://www.w3.org/2001/XMLSchema-instance
gmd	http://www.isotc211.org/2005/gmd
gco	http://www.isotc211.org/2005/gco
gmx	http://www.isotc211.org/2005/gmx
gml	http://www.opengis.net/gml/3.2
srv	http://www.isotc211.org/2005/srv
xlink	http://www.w3.org/1999/xlink

Index Processors

Field x FormatId Cross Reference

Index	FormatId
1	eml://ecoinformatics.org/eml-2.0.0
2	eml://ecoinformatics.org/eml-2.0.1
3	eml://ecoinformatics.org/eml-2.1.0
4	eml://ecoinformatics.org/eml-2.1.1
5	https://eml.ecoinformatics.org/eml-2.2.0
6	http://www.openarchives.org/ore/terms
7	FGDC-STD-001-1998
8	FGDC-STD-001.1-1999
9	FGDC-STD-001.2-1999
10	http://www.esri.com/metadata/esriprof80.dtd
11	http://purl.org/ornl/schema/mercury/terms/v1.0
12	http://purl.org/dryad/terms/
13	http://datadryad.org/profile/v3.1
14	http://dublincore.org/schemas/xmls/qdc/2008/02/11/qualifieddc.xsd
15	http://ns.dataone.org/metadata/schema/onedcx/v1.0
16	http://datacite.org/schema/kernel-3.1
17	http://datacite.org/schema/kernel-3.0
18	http://www.w3.org/TR/rdf-syntax-grammar
19	http://docs.annotatorjs.org/en/v1.2.x/annotation-format.html
20	http://www.isotc211.org/2005/gmd
21	http://www.isotc211.org/2005/gmd-noaa
22	http://www.isotc211.org/2005/gmd-pangaea
23	http://www.openarchives.org/OAI/2.0/oai_dc/

The following table indicates which formatIds have processing rules defined to set index field values when processing metadata. In the table, an "S" means the property is set from system metadata, an "X" means there is a rule defined to set the value, and blank indicates no rules are setting the field value (though Solr copy fields are not considered here).

Table 1: FormatId x Solr Field

Field FormatId	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
LTERSite																			
abstract	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X		
attribute	X	X	X	X	X		X	X	X	X	X								
attributeDescription	X	X	X	X	X		X	X	X	X	X								
attributeLabel	X	X	X	X	X		X	X	X	X	X								
attributeName	X	X	X	X	X		X	X	X	X	X								
attributeUnit	X	X	X	X	X		X	X	X	X	X								
author	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X		
authorGivenName	X	X	X	X	X							X	X			X	X		
authorGivenNameSort	X	X	X	X	X							X	X			X	X		
authorLastName	X	X	X	X	X											X	X		
authorSurName	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X		
authorSurNameSort	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X		
authoritativeMN	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
awardNumber					X														
awardTitle					X														
beginDate	X	X	X	X	X		X	X	X	X	X			X	X	X	X		
blockedReplicationMN	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
changePermission	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
checksum	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
checksumAlgorithm	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
class	X	X	X	X	X		X	X	X	X	X								
contactOrganization	X	X	X	X	X		X	X	X	X	X			X	X	X	X		
contactOrganizationText																			
dataUrl																			
datasource	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
dateModified	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
datePublished																			
dateUploaded	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
decade																			
documents																			
eastBoundCoord	X	X	X	X	X		X	X	X	X	X								
edition							X	X	X	X	X								
endDate	X	X	X	X	X		X	X	X	X	X			X	X	X	X		
family	X	X	X	X	X		X	X	X	X	X								
fileID	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
fileName	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
formatId	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
formatType	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
funderIdentifier					X														
funderName					X														
funding					X														
fundingText																			
gcmdKeyword							X	X	X	X	X								
genus	X	X	X	X	X		X	X	X	X	X								
geoform							X	X	X	X	X								
geohash_1	X	X	X	X	X		X	X	X	X	X			X	X				
geohash_2	X	X	X	X	X		X	X	X	X	X								
geohash_3	X	X	X	X	X		X	X	X	X	X								

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Table 1 – continued from previous page

Field FormatId	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
geohash_4	X	X	X	X	X		X	X	X	X	X								
geohash_5	X	X	X	X	X		X	X	X	X	X								
geohash_6	X	X	X	X	X		X	X	X	X	X								
geohash_7	X	X	X	X	X		X	X	X	X	X								
geohash_8	X	X	X	X	X		X	X	X	X	X								
geohash_9	X	X	X	X	X		X	X	X	X	X								
id	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
identifier																			
investigator	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X		
investigatorText																			
isDocumentedBy																			
isPublic	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
isService	X	X	X	X	X														
isSpatial																			
keyConcept																			
keywords	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X		
keywordsText																			
kingdom	X	X	X	X	X		X	X	X	X	X								
mediaType	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
mediaTypeProperty	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
namedLocation																			
noBoundingBox																			
northBoundCoord	X	X	X	X	X		X	X	X	X	X			X	X				
numberReplicas	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
obsoletedBy	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
obsoletes	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
ogcUrl																			
order	X	X	X	X	X		X	X	X	X	X								
origin	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X		
originText																			
originator																			
originatorText																			
parameter																			
parameterText																			
phylum	X	X	X	X	X		X	X	X	X	X								
placeKey							X	X	X	X	X								
preferredReplicationMN	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
presentationCat							X	X	X	X	X								
project	X	X	X	X	X														
projectText																			
prov_generated						X												X	
prov_generatedByExecution						X												X	
prov_generatedByProgram						X												X	
prov_generatedByUser						X												X	
prov_hasDerivations						X												X	
prov_hasSources																			
prov_instanceOfClass						X												X	
prov_used						X												X	
prov_usedByExecution						X												X	

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Table 1 – continued from previous page

Field FormatId	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
prov_usedByProgram						X												X	
prov_usedByUser						X												X	
prov_wasDerivedFrom						X												X	
prov_wasExecutedByExecution						X												X	
prov_wasExecutedByUser						X												X	
prov_wasInformedBy						X												X	
pubDate	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X		
purpose							X	X	X	X	X								
readPermission	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
relatedOrganizations																			
replicaMN	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
replicaVerifiedDate	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
replicationAllowed	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
resourceMap																			
rightsHolder	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
scientificName	X	X	X	X	X		X	X	X	X	X	X	X						
sem_annotated_by																			
sem_annotates																			
sem_annotation				X															X
sem_comment																			
sensor																			
sensorText																			
seriesId	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
serviceCoupling																			
serviceDescription	X	X	X	X	X														
serviceEndpoint	X	X	X	X	X														
serviceInput																			
serviceOutput																			
serviceTitle	X	X	X	X	X														
serviceType																			
site	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X		
siteText																			
size	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
source																			
sourceText																			
southBoundCoord	X	X	X	X	X		X	X	X	X	X								
species	X	X	X	X	X		X	X	X	X	X								
submitter	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
term																			
termText																			
text	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X		
title	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X		
titlestr																			
topic																			
topicText																			
updateDate																			
webUrl							X	X	X	X	X								
westBoundCoord	X	X	X	X	X		X	X	X	X	X								
writePermission	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S

System Metadata Parser

4.1 Fields

Solr Field	Multi	Dedupe	XPath
Index.id	False	False	`/d200:systemMetadata/identifier/text()` Processor: SolrField Configuration: *systemMetadata200Subprocessor.id*
Index.seriesId	False	False	`/d200:systemMetadata/seriesId/text()` Processor: SolrField Configuration: *systemMetadata200Subprocessor.seriesId*
Index.fileName	False	False	`/d200:systemMetadata/fileName/text()` Processor: SolrField Configuration: *systemMetadata200Subprocessor.fileName*
Index.mediaType	False	False	`/d200:systemMetadata/mediaType/`**@name** Processor: SolrField Configuration: *systemMetadata200Subprocessor.mediaType*

Table 1 – continued from previous page

Solr Field	Multi	Dedup	XPath
Index. mediaTypeProperty	False		```/d200:systemMetadata/mediaType/property ->{{[mediaTypePropertyName] [mediaTypePropertyValue]} →};``` `mediaTypePropertyName = @name;` `mediaTypePropertyValue = text()` Processor: CommonRootSolrField Configuration: *systemMetadata200Subprocessor.mediaTypeProperty*
Index.formatId	False	False	```/d200:systemMetadata/formatId/text()``` Processor: SolrField Configuration: *systemMetadata200Subprocessor.formatId*
Index.formatType	False	False	```/d200:systemMetadata/formatId/text()``` Processor: SolrField Configuration: *systemMetadata200Subprocessor.formatType* Converter: FormatIdToFormatTypeConverter
Index.size	False	False	```/d200:systemMetadata/size/text()``` Processor: SolrField Configuration: *systemMetadata200Subprocessor.size*
Index.checksum	False	False	```/d200:systemMetadata/checksum/text()``` Processor: SolrField Configuration: *systemMetadata200Subprocessor.checksum*
Index.submitter	False	False	```/d200:systemMetadata/submitter/text()``` Processor: SolrField Configuration: *systemMetadata200Subprocessor.submitter*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedupe	XPath
Index. *checksumAlgorithm*	False	False	`/d200:systemMetadata/checksum/`**`@algorithm`** Processor: SolrField Configuration: *systemMetadata200Subprocessor.checksumAlgorithm*
Index.rightsHolder	False	False	`/d200:systemMetadata/rightsHolder/text()` Processor: SolrField Configuration: *systemMetadata200Subprocessor.rightsHolder*
Index. *replicationAllowed*	False	False	`/d200:systemMetadata/replicationPolicy/` `↪`**`@replicationAllowed`** Processor: SolrField Configuration: *systemMetadata200Subprocessor.replicationAllowed*
Index.numberReplicas	False	False	`/d200:systemMetadata/replicationPolicy/` `↪`**`@numberReplicas`** Processor: SolrField Configuration: *systemMetadata200Subprocessor.numberReplicas*
Index. *preferredReplicationMN*	True	False	`/d200:systemMetadata/replicationPolicy/` `↪`preferredMemberNode/ `text()` Processor: SolrField Configuration: *systemMetadata200Subprocessor.preferredReplicationMN*
Index. *blockedReplicationMN*	True	False	`/d200:systemMetadata/replicationPolicy/` `↪`blockedMemberNode/ `text()` Processor: SolrField Configuration: *systemMetadata200Subprocessor.blockedReplicationMN*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	XPath
Index.obsoletes	False	False	`/d200:systemMetadata/obsoletes/text()` Processor: SolrField Configuration: *systemMetadata200Subprocessor.obsoletes*
Index.obsoletedBy	False	False	`/d200:systemMetadata/obsoletedBy/text()` Processor: SolrField Configuration: *systemMetadata200Subprocessor.obsoletedBy*
Index.dateUploaded	False	False	`/d200:systemMetadata/dateUploaded/text()` Processor: SolrField Configuration: *systemMetadata200Subprocessor.dateUploaded* Converter: SolrDateConverter

Index.dateModified	False	False	`/d200:systemMetadata/dateSysMetadataModified/`
			`→text()`
			
			Processor: SolrField
			Configuration: *systemMetadata200Subprocessor.dateModified*
			Converter: SolrDateConverter

Index.datasource	False	False	`/d200:systemMetadata/originMemberNode/text()` Processor: SolrField Configuration: *systemMetadata200Subprocessor.datasource*

Index.authoritativeMN	False	False	`/d200:systemMetadata/authoritativeMemberNode/`
			`→text()`
			
			Processor: SolrField
			Configuration:
			systemMetadata200Subprocessor.authoritativeMN

Table 1 – continued from previous page

Solr Field	Multi	Dedup	XPath

Index.replicaMN	True	False	`/d200:systemMetadata/replica/replicaMemberNode/`
			`↪text()`
			
			Processor: SolrField
			Configuration: *systemMetadata200Subprocessor.replicaMN*

Index.
replicationStatus
	True	False	`/d200:systemMetadata/replica/replicationStatus/`
			`↪text()`
			
			Processor: SolrField
			Configuration:
			systemMetadata200Subprocessor.replicationStatus

*Index.
replicaVerifiedDate*
	True	False	`/d200:systemMetadata/replica/replicaVerified/`
			`↪text()`
			
			Processor: SolrField
			Configuration:
			systemMetadata200Subprocessor.replicaVerifiedDate
			Converter: SolrDateConverter

Index.readPermission	True	True	`/d200:systemMetadata/accessPolicy/`
			`↪allow[permission= 'read']/`
			`subject/text()`
			
			Processor: SolrField
			Configuration: *systemMetadata200Subprocessor.readPermission*

*Index.
writePermission*
	True	True	`/d200:systemMetadata/accessPolicy/`
			`↪allow[permission= 'write']`
			`/subject/text()`
			
			Processor: SolrField
			Configuration: *systemMetadata200Subprocessor.writePermission*

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Table 1 – continued from previous page

Solr Field	Multi	Dedup	XPath
Index. changePermission	True	True	`/d200:systemMetadata/accessPolicy/` `→allow[permission=` `'changePermission']/subject/text()` Processor: SolrField Configuration: *systemMetadata200Subprocessor.changePermission*
Index.isPublic	False	False	`(//accessPolicy/allow[permission= 'read']/` `→subject[text()=` `'public']/text()	//accessPolicy/` `→allow[permission=` `'write']/subject[text()='public']/text()	//` `accessPolicy/allow[permission= 'changePermission` `→']/` `subject[text()='public']/text()	//` `→rightsHolder[` `text()='public']/text())[1]` Processor: SolrField Configuration: *systemMetadata200Subprocessor.isPublic* Converter: BooleanMatchConverter
Index.fileID			Processor: ResolveSolrField Configuration: *systemMetadata200Subprocessor.fileID* Converter:

4.2 Bean Configurations

4.2.1 systemMetadata200Subprocessor.id

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→class="org.dataone.cn.indexer.parser.SolrField">
                              <constructor-arg name="name" value="id"/>
                              <constructor-arg name="xpath" value="/
→d200:systemMetadata/identifier/text()"/>
                    </bean>
```

4.2.2 systemMetadata200Subprocessor.seriesId

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪class="org.dataone.cn.indexer.parser.SolrField">
                                    <constructor-arg name="name" value="seriesId"/>
                                    <constructor-arg name="xpath" value="/
↪d200:systemMetadata/seriesId/text()"/>
                            </bean>
```

4.2.3 systemMetadata200Subprocessor.fileName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪class="org.dataone.cn.indexer.parser.SolrField">
                                    <constructor-arg name="name" value="fileName"/>
                                    <constructor-arg name="xpath" value="/
↪d200:systemMetadata/fileName/text()"/>
                            </bean>
```

4.2.4 systemMetadata200Subprocessor.mediaType

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪class="org.dataone.cn.indexer.parser.SolrField">
                                    <constructor-arg name="name" value="mediaType"/>
                                    <constructor-arg name="xpath" value="/
↪d200:systemMetadata/mediaType/@name"/>
                            </bean>
```

4.2.5 systemMetadata200Subprocessor.mediaTypeProperty

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪class="org.dataone.cn.indexer.parser.CommonRootSolrField" p:multivalue="true"␣
↪p:root-ref="mediaTypePropertyListRoot">
                                            <constructor-arg name="name" value=
↪"mediaTypeProperty"/>
                            </bean>
```

4.2.6 systemMetadata200Subprocessor.formatId

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪class="org.dataone.cn.indexer.parser.SolrField">
                                    <constructor-arg name="name" value="formatId"/>
                                    <constructor-arg name="xpath" value="/
↪d200:systemMetadata/formatId/text()"/>
                            </bean>
```

4.2.7 systemMetadata200Subprocessor.formatType

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→class="org.dataone.cn.indexer.parser.SolrField">
                              <constructor-arg name="name" value="formatType"/>
                              <constructor-arg name="xpath" value="/
→d200:systemMetadata/formatId/text()"/>
                              <property name="converter" ref=
→"formatIdToFormatTypeConverter"/>
                    </bean>
```

4.2.8 systemMetadata200Subprocessor.size

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→class="org.dataone.cn.indexer.parser.SolrField">
                              <constructor-arg name="name" value="size"/>
                              <constructor-arg name="xpath" value="/
→d200:systemMetadata/size/text()"/>
                    </bean>
```

4.2.9 systemMetadata200Subprocessor.checksum

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→class="org.dataone.cn.indexer.parser.SolrField">
                              <constructor-arg name="name" value="checksum"/>
                              <constructor-arg name="xpath" value="/
→d200:systemMetadata/checksum/text()"/>
                    </bean>
```

4.2.10 systemMetadata200Subprocessor.submitter

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→class="org.dataone.cn.indexer.parser.SolrField">
                              <constructor-arg name="name" value="submitter"/>
                              <constructor-arg name="xpath" value="/
→d200:systemMetadata/submitter/text()"/>
                    </bean>
```

4.2.11 systemMetadata200Subprocessor.checksumAlgorithm

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→class="org.dataone.cn.indexer.parser.SolrField">
                              <constructor-arg name="name" value=
→"checksumAlgorithm"/>
```

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```
                            <constructor-arg name="xpath" value="/
↪d200:systemMetadata/checksum/@algorithm"/>
                        </bean>
```

4.2.12 systemMetadata200Subprocessor.rightsHolder

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪class="org.dataone.cn.indexer.parser.SolrField">
                            <constructor-arg name="name" value="rightsHolder
↪"/>
                            <constructor-arg name="xpath" value="/
↪d200:systemMetadata/rightsHolder/text()"/>
                        </bean>
```

4.2.13 systemMetadata200Subprocessor.replicationAllowed

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪class="org.dataone.cn.indexer.parser.SolrField">
                            <constructor-arg name="name" value=
↪"replicationAllowed"/>
                            <constructor-arg name="xpath" value="/
↪d200:systemMetadata/replicationPolicy/@replicationAllowed"/>
                        </bean>
```

4.2.14 systemMetadata200Subprocessor.numberReplicas

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪class="org.dataone.cn.indexer.parser.SolrField">
                            <constructor-arg name="name" value=
↪"numberReplicas"/>
                            <constructor-arg name="xpath" value="/
↪d200:systemMetadata/replicationPolicy/@numberReplicas"/>
                        </bean>
```

4.2.15 systemMetadata200Subprocessor.preferredReplicationMN

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪class="org.dataone.cn.indexer.parser.SolrField">
                            <constructor-arg name="name" value=
↪"preferredReplicationMN"/>
                            <constructor-arg name="xpath" value="/
↪d200:systemMetadata/replicationPolicy/preferredMemberNode/text()"/>
                            <property name="multivalue" value="true"/>
                        </bean>
```

4.2.16 systemMetadata200Subprocessor.blockedReplicationMN

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→class="org.dataone.cn.indexer.parser.SolrField">
                                <constructor-arg name="name" value=
→"blockedReplicationMN"/>
                                <constructor-arg name="xpath" value="/
→d200:systemMetadata/replicationPolicy/blockedMemberNode/text()"/>
                                <property name="multivalue" value="true"/>
                        </bean>
```

4.2.17 systemMetadata200Subprocessor.obsoletes

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→class="org.dataone.cn.indexer.parser.SolrField">
                                <constructor-arg name="name" value="obsoletes"/>
                                <constructor-arg name="xpath" value="/
→d200:systemMetadata/obsoletes/text()"/>
                        </bean>
```

4.2.18 systemMetadata200Subprocessor.obsoletedBy

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→class="org.dataone.cn.indexer.parser.SolrField">
                                <constructor-arg name="name" value="obsoletedBy"/
→>
                                <constructor-arg name="xpath" value="/
→d200:systemMetadata/obsoletedBy/text()"/>
                        </bean>
```

4.2.19 systemMetadata200Subprocessor.dateUploaded

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→class="org.dataone.cn.indexer.parser.SolrField">
                                <constructor-arg name="name" value="dateUploaded
→"/>
                                <constructor-arg name="xpath" value="/
→d200:systemMetadata/dateUploaded/text()"/>
                                <property name="converter" ref="dateConverter"/>
                        </bean>
```

4.2.20 systemMetadata200Subprocessor.dateModified

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪class="org.dataone.cn.indexer.parser.SolrField">
                                <constructor-arg name="name" value="dateModified
↪"/>
                                <constructor-arg name="xpath" value="/
↪d200:systemMetadata/dateSysMetadataModified/text()"/>
                                <property name="converter" ref="dateConverter"/>
                </bean>
```

4.2.21 systemMetadata200Subprocessor.datasource

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪class="org.dataone.cn.indexer.parser.SolrField">
                                <constructor-arg name="name" value="datasource"/>
                                <constructor-arg name="xpath" value="/
↪d200:systemMetadata/originMemberNode/text()"/>
                </bean>
```

4.2.22 systemMetadata200Subprocessor.authoritativeMN

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪class="org.dataone.cn.indexer.parser.SolrField">
                                <constructor-arg name="name" value=
↪"authoritativeMN"/>
                                <constructor-arg name="xpath" value="/
↪d200:systemMetadata/authoritativeMemberNode/text()"/>
                </bean>
```

4.2.23 systemMetadata200Subprocessor.replicaMN

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪class="org.dataone.cn.indexer.parser.SolrField">
                                <constructor-arg name="name" value="replicaMN"/>
                                <constructor-arg name="xpath" value="/
↪d200:systemMetadata/replica/replicaMemberNode/text()"/>
                                <property name="multivalue" value="true"/>
                </bean>
```

4.2.24 systemMetadata200Subprocessor.replicationStatus

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪class="org.dataone.cn.indexer.parser.SolrField">
                <constructor-arg name="name" value="replicationStatus"/>
                <constructor-arg name="xpath" value="/d200:systemMetadata/replica/
↪replicationStatus/text()"/>
```

```
                    <property name="multivalue" value="true"/>
            </bean>
```

4.2.25 systemMetadata200Subprocessor.replicaVerifiedDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→class="org.dataone.cn.indexer.parser.SolrField">
                            <constructor-arg name="name" value=
→"replicaVerifiedDate"/>
                            <constructor-arg name="xpath" value="/
→d200:systemMetadata/replica/replicaVerified/text()"/>
                            <property name="multivalue" value="true"/>
                            <property name="converter" ref="dateConverter"/>
                </bean>
```

4.2.26 systemMetadata200Subprocessor.readPermission

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→class="org.dataone.cn.indexer.parser.SolrField">
                            <constructor-arg name="name" value=
→"readPermission"/>
                            <constructor-arg name="xpath" value="/
→d200:systemMetadata/accessPolicy/allow[permission= 'read']/subject/text()"/>
                            <property name="multivalue" value="true"/>
                            <property name="dedupe" value="true"/>
                </bean>
```

4.2.27 systemMetadata200Subprocessor.writePermission

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→class="org.dataone.cn.indexer.parser.SolrField">
                            <constructor-arg name="name" value=
→"writePermission"/>
                            <constructor-arg name="xpath" value="/
→d200:systemMetadata/accessPolicy/allow[permission= 'write']/subject/text()"/>
                            <property name="multivalue" value="true"/>
                            <property name="dedupe" value="true"/>
                </bean>
```

4.2.28 systemMetadata200Subprocessor.changePermission

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→class="org.dataone.cn.indexer.parser.SolrField">
                            <constructor-arg name="name" value=
→"changePermission"/>
```

```
                          <constructor-arg name="xpath" value="/
→d200:systemMetadata/accessPolicy/allow[permission= 'changePermission']/subject/
→text()"/>
                                  <property name="multivalue" value="true"/>
                                  <property name="dedupe" value="true"/>
                  </bean>
```

4.2.29 systemMetadata200Subprocessor.isPublic

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→class="org.dataone.cn.indexer.parser.SolrField">
                                  <constructor-arg name="name" value="isPublic"/>
                                  <constructor-arg name="xpath" value="(//
→accessPolicy/allow[permission= 'read']/subject[text()='public']/text() | //
→accessPolicy/allow[permission= 'write']/subject[text()='public']/text() | //
→accessPolicy/allow[permission= 'changePermission']/subject[text()='public']/text()␣
→| //rightsHolder[text()='public']/text())[1]"/>
                                  <property name="converter" ref=
→"booleanPublicConverter"/>
                  </bean>
```

4.2.30 systemMetadata200Subprocessor.fileID

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→class="org.dataone.cn.indexer.parser.ResolveSolrField">
                                  <constructor-arg name="name" value="dataUrl"/>
                  </bean>
```

Semantic Annotation from JSON

Describes parser configuration for: annotatorSubprocessor

5.1 Format IDs Processed

This parser processes the following DataONE format IDs:

- AnnotatorJS 1.2.x Annotation model
  formatId: `http://docs.annotatorjs.org/en/v1.2.x/annotation-format.html`

A full list of DataONE format IDs can be found at https://cn.dataone.org/cn/v2/formats/

5.2 Fields

The following fields in the solr index are populated from values retrieved from this type of metadata document. Note that these are in addition to the information extracted from *System Metadata Parser*.

Solr Field	Multi	Dedup	Source
Index.sem_annotation	False	False	``` SELECT ?sem_annotation WHERE { <$CONCEPT_URI> rdfs:subClassOf+ →?sem_annotation . } ``` Processor: SparqlField Configuration: *annotation.expansion*
Index. sem_annotation_bioportal_sm	False	False	``` SELECT ?sem_annotation_bioportal_sm WHERE { <$CONCEPT_URI> rdfs:subClassOf+ →?sem_annotation_bioportal_sm . } ``` Processor: SparqlField Configuration: *annotation.bioportal.expansion*
Index. sem_annotation_esor_sm	False	False	``` SELECT ?sem_annotation_esor_sm WHERE { <$CONCEPT_URI> rdfs:subClassOf+ →?sem_annotation_esor_sm . } ``` Processor: SparqlField Configuration: *annotation.esor.expansion*
Index. sem_annotation_cosine_sm	False	False	``` SELECT ?sem_annotation_cosine_sm WHERE { <$CONCEPT_URI> rdfs:subClassOf+ →?sem_annotation_cosine_sm . } ``` Processor: SparqlField Configuration: *annotation.cosine.expansion*

5.3 Bean Configurations

5.3.1 annotation.expansion

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" xmlns:p="http://www.springframework.org/schema/p" id=
→"annotation.expansion" class="org.dataone.cn.indexer.annotation.SparqlField">
        <constructor-arg name="name" value="sem_annotation"/>
```

(continues on next page)

```
                <constructor-arg name="query">
                        <value>
                                <![CDATA[
                                PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
                                PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
                                PREFIX owl: <http://www.w3.org/2002/07/owl#>

                                SELECT ?sem_annotation
                                WHERE {
                                                <$CONCEPT_URI> rdfs:subClassOf+ ?sem_
→annotation .
                                }
                                ]]>
                        </value>
                </constructor-arg>
                <!--property name="multivalue" value="false" /-->
        </bean>
```

5.3.2 annotation.bioportal.expansion

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" xmlns:p="http://www.springframework.org/schema/p" id=
→"annotation.bioportal.expansion" class="org.dataone.cn.indexer.annotation.
→SparqlField">
                <constructor-arg name="name" value="sem_annotation_bioportal_sm"/>
                <constructor-arg name="query">
                        <value>
                                <![CDATA[
                                PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
                                PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
                                PREFIX owl: <http://www.w3.org/2002/07/owl#>

                                SELECT ?sem_annotation_bioportal_sm
                                WHERE {
                                                <$CONCEPT_URI> rdfs:subClassOf+ ?sem_
→annotation_bioportal_sm .
                                }
                                ]]>
                        </value>
                </constructor-arg>
        </bean>
```

5.3.3 annotation.esor.expansion

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" xmlns:p="http://www.springframework.org/schema/p" id=
→"annotation.esor.expansion" class="org.dataone.cn.indexer.annotation.SparqlField">
                <constructor-arg name="name" value="sem_annotation_esor_sm"/>
                <constructor-arg name="query">
                        <value>
                                <![CDATA[
                                PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
```

```
                                PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
                                PREFIX owl: <http://www.w3.org/2002/07/owl#>

                                SELECT ?sem_annotation_esor_sm
                                WHERE {
                                                <$CONCEPT_URI> rdfs:subClassOf+ ?sem_
→annotation_esor_sm .
                                }
                        ]]>
                </value>
        </constructor-arg>
    </bean>
```

5.3.4 annotation.cosine.expansion

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" xmlns:p="http://www.springframework.org/schema/p" id=
→"annotation.cosine.expansion" class="org.dataone.cn.indexer.annotation.SparqlField">
                <constructor-arg name="name" value="sem_annotation_cosine_sm"/>
                <constructor-arg name="query">
                        <value>
                                <![CDATA[
                                PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
                                PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
                                PREFIX owl: <http://www.w3.org/2002/07/owl#>

                                SELECT ?sem_annotation_cosine_sm
                                WHERE {
                                                <$CONCEPT_URI> rdfs:subClassOf+ ?sem_
→annotation_cosine_sm .
                                }
                        ]]>
                </value>
        </constructor-arg>
    </bean>
```

DataCite 3

Describes parser configuration for: datacite3Subprocessor

6.1 Format IDs Processed

This parser processes the following DataONE format IDs:

- DataCite Metadata Schema version 3.1
  formatId: `http://datacite.org/schema/kernel-3.1`

- DataCite Metadata Schema version 3.0
  formatId: `http://datacite.org/schema/kernel-3.0`

A full list of DataONE format IDs can be found at https://cn.dataone.org/cn/v2/formats/

6.2 Fields

The following fields in the solr index are populated from values retrieved from this type of metadata document. Note that these are in addition to the information extracted from *System Metadata Parser*.

Solr Field	Multi	Dedup	Source
Index.author	False	False	`(/datacite:resource/datacite:creators/` `↪datacite:creator[1]/` `datacite:creatorName[1]/text())[1]` Processor: SolrField Configuration: *datacite.author*
Index.authorLastName	False	False	`(/datacite:resource/datacite:creators/` `↪datacite:creator[1]/` `datacite:creatorName[1]/text())[1]` Processor: SolrField Configuration: *datacite.author_lname*
Index.authorSurName	False	False	`(/datacite:resource/datacite:creators/` `↪datacite:creator[1]/` `datacite:creatorName[1]/text())[1]` Processor: SolrField Configuration: *datacite.authorSurName*
Index. *authorSurNameSort*	False	False	`(/datacite:resource/datacite:creators/` `↪datacite:creator[1]/` `datacite:creatorName[1]/text())[1]` Processor: SolrField Configuration: *datacite.authorSurNameSort*
Index. *authorGivenName*	False	False	`(/datacite:resource/datacite:creators/` `↪datacite:creator[1]/` `datacite:creatorName[1]/text())[1]` Processor: SolrField Configuration: *datacite.authorGivenName*
Index. *authorGivenNameSort*	False	False	`(/datacite:resource/datacite:creators/` `↪datacite:creator[1]/` `datacite:creatorName[1]/text())[1]` Processor: SolrField Configuration: *datacite.authorGivenNameSort*

Index.abstract	False	False	`(/datacite:resource/datacite:descriptions/` `datacite:description[@descriptionType='Abstract` `↪'][1]`
			`/text())[1]`
			
			Processor: SolrField
			Configuration: *datacite.abstract*

6.3 Bean Configurations

6.3.1 datacite.author

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="datacite.author" class="org.dataone.cn.indexer.
↪parser.SolrField">
        <constructor-arg name="name" value="author"/>
        <constructor-arg name="xpath" value="(/datacite:resource/
↪datacite:creators/datacite:creator[1]/datacite:creatorName[1]/text())[1]"/>
    </bean>
```

6.3.2 datacite.author_lname

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="datacite.author_lname" class="org.dataone.cn.
↪indexer.parser.SolrField">
        <constructor-arg name="name" value="authorLastName"/>
        <constructor-arg name="xpath" value="(/datacite:resource/
↪datacite:creators/datacite:creator[1]/datacite:creatorName[1]/text())[1]"/>
        <property name="substringBefore" value="true"/>
        <property name="splitOnString" value=","/>
    </bean>
```

6.3.3 datacite.authorSurName

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="datacite.authorSurName" class="org.dataone.cn.
↪indexer.parser.SolrField">
        <constructor-arg name="name" value="authorSurName"/>
        <constructor-arg name="xpath" value="(/datacite:resource/
↪datacite:creators/datacite:creator[1]/datacite:creatorName[1]/text())[1]"/>
        <property name="substringBefore" value="true"/>
        <property name="splitOnString" value=","/>
    </bean>
```

6.3.4 datacite.authorSurNameSort

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="datacite.authorSurNameSort" class="org.dataone.cn.
↪indexer.parser.SolrField">
        <constructor-arg name="name" value="authorSurNameSort"/>
        <constructor-arg name="xpath" value="(/datacite:resource/
↪datacite:creators/datacite:creator[1]/datacite:creatorName[1]/text())[1]"/>
        <property name="substringBefore" value="true"/>
        <property name="splitOnString" value=","/>
    </bean>
```

6.3.5 datacite.authorGivenName

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="datacite.authorGivenName" class="org.dataone.cn.
→indexer.parser.SolrField">
        <constructor-arg name="name" value="authorGivenName"/>
        <constructor-arg name="xpath" value="(/datacite:resource/
→datacite:creators/datacite:creator[1]/datacite:creatorName[1]/text())[1]"/>
        <property name="substringAfter" value="true"/>
        <property name="splitOnString" value=","/>
    </bean>
```

6.3.6 datacite.authorGivenNameSort

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="datacite.authorGivenNameSort" class="org.dataone.
→cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="authorGivenNameSort"/>
        <constructor-arg name="xpath" value="(/datacite:resource/
→datacite:creators/datacite:creator[1]/datacite:creatorName[1]/text())[1]"/>
        <property name="substringAfter" value="true"/>
        <property name="splitOnString" value=","/>
    </bean>
```

6.3.7 datacite.abstract

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="datacite.abstract" class="org.dataone.cn.indexer.
→parser.SolrField">
        <constructor-arg name="name" value="abstract"/>
        <constructor-arg name="xpath" value="(/datacite:resource/
→datacite:descriptions/datacite:description[@descriptionType='Abstract'][1]/
→text())[1]"/>
        <property name="multivalue" value="false"/>
        <property name="dedupe" value="false"/>
    </bean>
```

6.3.8 datacite.title

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="datacite.title" class="org.dataone.cn.indexer.
→parser.SolrField">
        <constructor-arg name="name" value="title"/>
        <constructor-arg name="xpath" value="(/datacite:resource/datacite:titles/
→datacite:title[1]/text())[1]"/>
    </bean>
```

6.3.9 datacite.pubDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="datacite.pubDate" class="org.dataone.cn.indexer.
↪parser.SolrField">
            <constructor-arg name="name" value="pubDate"/>
            <constructor-arg name="xpath" value="(/datacite:resource/
↪datacite:publicationYear[1]/text())[1]"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

6.3.10 datacite.keywords

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="datacite.keywords" class="org.dataone.cn.indexer.
↪parser.SolrField">
            <constructor-arg name="name" value="keywords"/>
            <constructor-arg name="xpath" value="/datacite:resource/
↪datacite:subjects/datacite:subject/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

6.3.11 datacite.beginDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="datacite.beginDate" class="org.dataone.cn.indexer.
↪parser.SolrField">
            <constructor-arg name="name" value="beginDate"/>
            <constructor-arg name="xpath" value="(/datacite:resource/datacite:dates/
↪datacite:date[@dateType='Collected'][1]/text())[1]"/>
            <property name="substringBefore" value="true"/>
            <property name="splitOnString" value="/"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

6.3.12 datacite.endDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="datacite.endDate" class="org.dataone.cn.indexer.
↪parser.SolrField">
            <constructor-arg name="name" value="endDate"/>
            <constructor-arg name="xpath" value="(/datacite:resource/datacite:dates/
↪datacite:date[@dateType='Collected'][1]/text())[1]"/>
            <property name="substringAfter" value="true"/>
            <property name="splitOnString" value="/"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

6.3.13 datacite.origin

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="datacite.origin" class="org.dataone.cn.indexer.
→parser.SolrField">
        <constructor-arg name="name" value="origin"/>
        <constructor-arg name="xpath" value="/datacite:resource/
→datacite:creators/datacite:creator/datacite:creatorName/text()"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="true"/>
    </bean>
```

6.3.14 datacite.investigator

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="datacite.investigator" class="org.dataone.cn.
→indexer.parser.SolrField">
        <constructor-arg name="name" value="investigator"/>
        <constructor-arg name="xpath" value="/datacite:resource/
→datacite:creators/datacite:creator/datacite:creatorName/text() | /datacite:resource/
→datacite:contributors/datacite:contributor[@contributorType='DataCollector']/
→datacite:contributorName/text()"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="true"/>
    </bean>
```

6.3.15 datacite.contactOrganization

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="datacite.contactOrganization" class="org.dataone.
→cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="contactOrganization"/>
        <constructor-arg name="xpath" value="/datacite:resource/
→datacite:contributors/datacite:contributor[@contributorType='HostingInstitution']/
→datacite:contributorName/text()"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="true"/>
    </bean>
```

6.3.16 datacite.site

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="datacite.site" class="org.dataone.cn.indexer.
→parser.SolrField">
        <constructor-arg name="name" value="site"/>
        <constructor-arg name="xpath" value="/datacite:resource/
→datacite:geoLocations/datacite:geoLocation/datacite:geoLocationPlace/text()"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="true"/>
    </bean>
```

6.3.17 datacite.boxSpatialBoundCoordinates

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="datacite.boxSpatialBoundCoordinates" class="org.
→dataone.cn.indexer.parser.DataCiteSpatialBoxBoundingCoordinatesSolrField">
            <property name="pointXPath" value="(/datacite:resource/
→datacite:geoLocations/datacite:geoLocation/datacite:geoLocationPoint[1]/text())[1]"/
→>
            <property name="boxXPath" value="(/datacite:resource/
→datacite:geoLocations/datacite:geoLocation/datacite:geoLocationBox[1]/text())[1]"/>
    </bean>
```

6.3.18 datacite.boxSpatialGeohash

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="datacite.boxSpatialGeohash" class="org.dataone.cn.
→indexer.parser.DataCiteSpatialBoxGeohashSolrField">
            <property name="pointXPath" value="(/datacite:resource/
→datacite:geoLocations/datacite:geoLocation/datacite:geoLocationPoint[1]/text())[1]"/
→>
            <property name="boxXPath" value="(/datacite:resource/
→datacite:geoLocations/datacite:geoLocation/datacite:geoLocationBox[1]/text())[1]"/>
    </bean>
```

6.3.19 datacite.fileID

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="datacite.fileID" class="org.dataone.cn.indexer.
→parser.ResolveSolrField">
            <constructor-arg name="name" value="fileID"/>
    </bean>
```

6.3.20 datacite.fullText

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="datacite.fullText" class="org.dataone.cn.indexer.
→parser.FullTextSolrField">
            <constructor-arg name="name" value="text"/>
            <constructor-arg name="xpath" value="//*/text()"/>
            <property name="combineNodes" value="true"/>
    </bean>
```

Dryad 3.0

Describes parser configuration for: dryad30Subprocessor

7.1 Format IDs Processed

This parser processes the following DataONE format IDs:

- Dryad Metadata Application Profile Version 3.0
  formatId: `http://purl.org/dryad/terms/`

A full list of DataONE format IDs can be found at https://cn.dataone.org/cn/v2/formats/

7.2 Fields

The following fields in the solr index are populated from values retrieved from this type of metadata document. Note that these are in addition to the information extracted from *System Metadata Parser*.

Solr Field	Multi	Dedup	Source
Index.abstract	False	False	//dcterms:description[1]/text() Processor: SolrField Configuration: *dryad.abstract*
Index.author	False	False	//dcterms:creator[1]/text() Processor: SolrField Configuration: *dryad.author*
Index.authorSurName	False	False	//dcterms:creator[1]/text() Processor: SolrField Configuration: *dryad.authorSurName*
Index. authorSurNameSort	False	False	//dcterms:creator[1]/text() Processor: SolrField Configuration: *dryad.authorSurNameSort*
Index. authorGivenName	False	False	//dcterms:creator[1]/text() Processor: SolrField Configuration: *dryad.authorGivenName*
Index. authorGivenNameSort	False	False	//dcterms:creator[1]/text() Processor: SolrField Configuration: *dryad.authorGivenNameSort*
Index.investigator	True	True	//dcterms:creator/text() Processor: SolrField Configuration: *dryad.investigator*
Index.keywords	True	False	//dcterms:subject/text() Processor: SolrField Configuration: *dryad.keywords*
Index.origin	True	True	//dcterms:creator/text() Processor: SolrField Configuration: *dryad.origin*

Chapter 7. Dryad 3.0

7.3 Bean Configurations

7.3.1 dryad.abstract

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dryad.abstract" class="org.dataone.cn.indexer.
→parser.SolrField">
        <constructor-arg name="name" value="abstract"/>
        <constructor-arg name="xpath" value="//dcterms:description[1]/text()"/>
    </bean>
```

7.3.2 dryad.author

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dryad.author" class="org.dataone.cn.indexer.parser.
→SolrField">
        <constructor-arg name="name" value="author"/>
        <constructor-arg name="xpath" value="//dcterms:creator[1]/text()"/>
    </bean>
```

7.3.3 dryad.authorSurName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dryad.authorSurName" class="org.dataone.cn.indexer.
→parser.SolrField">
        <constructor-arg name="name" value="authorSurName"/>
        <constructor-arg name="xpath" value="//dcterms:creator[1]/text()"/>
        <property name="substringBefore" value="true"/>
        <property name="splitOnString" value=","/>
    </bean>
```

7.3.4 dryad.authorSurNameSort

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dryad.authorSurNameSort" class="org.dataone.cn.
→indexer.parser.SolrField">
        <constructor-arg name="name" value="authorSurNameSort"/>
        <constructor-arg name="xpath" value="//dcterms:creator[1]/text()"/>
        <property name="substringBefore" value="true"/>
        <property name="splitOnString" value=","/>
    </bean>
```

7.3.5 dryad.authorGivenName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dryad.authorGivenName" class="org.dataone.cn.
→indexer.parser.SolrField">
        <constructor-arg name="name" value="authorGivenName"/>
```

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```xml
            <constructor-arg name="xpath" value="//dcterms:creator[1]/text()"/>
            <property name="substringAfter" value="true"/>
            <property name="splitOnString" value=","/>
    </bean>
```

7.3.6 dryad.authorGivenNameSort

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dryad.authorGivenNameSort" class="org.dataone.cn.
→indexer.parser.SolrField">
            <constructor-arg name="name" value="authorGivenNameSort"/>
            <constructor-arg name="xpath" value="//dcterms:creator[1]/text()"/>
            <property name="substringAfter" value="true"/>
            <property name="splitOnString" value=","/>
    </bean>
```

7.3.7 dryad.investigator

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dryad.investigator" class="org.dataone.cn.indexer.
→parser.SolrField">
            <constructor-arg name="name" value="investigator"/>
            <constructor-arg name="xpath" value="//dcterms:creator/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

7.3.8 dryad.keywords

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dryad.keywords" class="org.dataone.cn.indexer.
→parser.SolrField">
            <constructor-arg name="name" value="keywords"/>
            <constructor-arg name="xpath" value="//dcterms:subject/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

7.3.9 dryad.origin

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dryad.origin" class="org.dataone.cn.indexer.parser.
→SolrField">
            <constructor-arg name="name" value="origin"/>
            <constructor-arg name="xpath" value="//dcterms:creator/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

7.3.10 dryad.pubDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dryad.pubDate" class="org.dataone.cn.indexer.
→parser.SolrField">
        <constructor-arg name="name" value="pubDate"/>
        <constructor-arg name="xpath" value="//dcterms:dateSubmitted/text()"/>
        <property name="converter" ref="dateConverter"/>
    </bean>
```

7.3.11 dryad.site

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dryad.site" class="org.dataone.cn.indexer.parser.
→SolrField">
        <constructor-arg name="name" value="site"/>
        <constructor-arg name="xpath" value="//dcterms:spatial/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

7.3.12 dryad.title

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dryad.title" class="org.dataone.cn.indexer.parser.
→SolrField">
        <constructor-arg name="name" value="title"/>
        <constructor-arg name="xpath" value="//dcterms:title[1]/text()"/>
    </bean>
```

7.3.13 dryad.scientificName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dryad.scientificName" class="org.dataone.cn.
→indexer.parser.SolrField">
        <constructor-arg name="name" value="scientificName"/>
        <constructor-arg name="xpath" value="//dwc:scientificName/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

7.3.14 dryad.fileID

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dryad.fileID" class="org.dataone.cn.indexer.parser.
→ResolveSolrField">
        <constructor-arg name="name" value="fileID"/>
    </bean>
```

7.3.15 dryad.fullText

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dryad.fullText" class="org.dataone.cn.indexer.
→parser.FullTextSolrField">
            <constructor-arg name="name" value="text"/>
            <constructor-arg name="xpath" value="//*/text()"/>
            <property name="combineNodes" value="true"/>
    </bean>
```

Dryad 3.1

Describes parser configuration for: dryad31Subprocessor

8.1 Format IDs Processed

This parser processes the following DataONE format IDs:

- Dryad Metadata Application Profile Version 3.1
  formatId: `http://datadryad.org/profile/v3.1`

A full list of DataONE format IDs can be found at https://cn.dataone.org/cn/v2/formats/

8.2 Fields

The following fields in the solr index are populated from values retrieved from this type of metadata document. Note that these are in addition to the information extracted from *System Metadata Parser*.

Solr Field	Multi	Dedup	Source
Index.abstract	False	False	`//dcterms:description[1]/text()` Processor: SolrField Configuration: *dryad.abstract*
Index.author	False	False	`//dcterms:creator[1]/text()` Processor: SolrField Configuration: *dryad.author*
Index.authorSurName	False	False	`//dcterms:creator[1]/text()` Processor: SolrField Configuration: *dryad.authorSurName*
Index.authorSurNameSort	False	False	`//dcterms:creator[1]/text()` Processor: SolrField Configuration: *dryad.authorSurNameSort*
Index.authorGivenName	False	False	`//dcterms:creator[1]/text()` Processor: SolrField Configuration: *dryad.authorGivenName*
Index.authorGivenNameSort	False	False	`//dcterms:creator[1]/text()` Processor: SolrField Configuration: *dryad.authorGivenNameSort*
Index.investigator	True	True	`//dcterms:creator/text()` Processor: SolrField Configuration: *dryad.investigator*
Index.keywords	True	False	`//dcterms:subject/text()` Processor: SolrField Configuration: *dryad.keywords*
Index.origin	True	True	`//dcterms:creator/text()` Processor: SolrField Configuration: *dryad.origin*

Chapter 8. Dryad 3.1

8.3 Bean Configurations

8.3.1 dryad.abstract

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dryad.abstract" class="org.dataone.cn.indexer.
↪parser.SolrField">
        <constructor-arg name="name" value="abstract"/>
        <constructor-arg name="xpath" value="//dcterms:description[1]/text()"/>
    </bean>
```

8.3.2 dryad.author

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dryad.author" class="org.dataone.cn.indexer.parser.
↪SolrField">
        <constructor-arg name="name" value="author"/>
        <constructor-arg name="xpath" value="//dcterms:creator[1]/text()"/>
    </bean>
```

8.3.3 dryad.authorSurName

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dryad.authorSurName" class="org.dataone.cn.indexer.
↪parser.SolrField">
        <constructor-arg name="name" value="authorSurName"/>
        <constructor-arg name="xpath" value="//dcterms:creator[1]/text()"/>
        <property name="substringBefore" value="true"/>
        <property name="splitOnString" value=","/>
    </bean>
```

8.3.4 dryad.authorSurNameSort

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dryad.authorSurNameSort" class="org.dataone.cn.
↪indexer.parser.SolrField">
        <constructor-arg name="name" value="authorSurNameSort"/>
        <constructor-arg name="xpath" value="//dcterms:creator[1]/text()"/>
        <property name="substringBefore" value="true"/>
        <property name="splitOnString" value=","/>
    </bean>
```

8.3.5 dryad.authorGivenName

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dryad.authorGivenName" class="org.dataone.cn.
↪indexer.parser.SolrField">
        <constructor-arg name="name" value="authorGivenName"/>
```

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```
            <constructor-arg name="xpath" value="//dcterms:creator[1]/text()"/>
            <property name="substringAfter" value="true"/>
            <property name="splitOnString" value=","/>
    </bean>
```

8.3.6 dryad.authorGivenNameSort

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dryad.authorGivenNameSort" class="org.dataone.cn.
↪indexer.parser.SolrField">
            <constructor-arg name="name" value="authorGivenNameSort"/>
            <constructor-arg name="xpath" value="//dcterms:creator[1]/text()"/>
            <property name="substringAfter" value="true"/>
            <property name="splitOnString" value=","/>
    </bean>
```

8.3.7 dryad.investigator

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dryad.investigator" class="org.dataone.cn.indexer.
↪parser.SolrField">
            <constructor-arg name="name" value="investigator"/>
            <constructor-arg name="xpath" value="//dcterms:creator/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

8.3.8 dryad.keywords

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dryad.keywords" class="org.dataone.cn.indexer.
↪parser.SolrField">
            <constructor-arg name="name" value="keywords"/>
            <constructor-arg name="xpath" value="//dcterms:subject/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

8.3.9 dryad.origin

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dryad.origin" class="org.dataone.cn.indexer.parser.
↪SolrField">
            <constructor-arg name="name" value="origin"/>
            <constructor-arg name="xpath" value="//dcterms:creator/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

8.3.10 dryad.pubDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dryad.pubDate" class="org.dataone.cn.indexer.
→parser.SolrField">
        <constructor-arg name="name" value="pubDate"/>
        <constructor-arg name="xpath" value="//dcterms:dateSubmitted/text()"/>
        <property name="converter" ref="dateConverter"/>
    </bean>
```

8.3.11 dryad.site

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dryad.site" class="org.dataone.cn.indexer.parser.
→SolrField">
        <constructor-arg name="name" value="site"/>
        <constructor-arg name="xpath" value="//dcterms:spatial/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

8.3.12 dryad.title

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dryad.title" class="org.dataone.cn.indexer.parser.
→SolrField">
        <constructor-arg name="name" value="title"/>
        <constructor-arg name="xpath" value="//dcterms:title[1]/text()"/>
    </bean>
```

8.3.13 dryad.scientificName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dryad.scientificName" class="org.dataone.cn.
→indexer.parser.SolrField">
        <constructor-arg name="name" value="scientificName"/>
        <constructor-arg name="xpath" value="//dwc:scientificName/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

8.3.14 dryad.fileID

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dryad.fileID" class="org.dataone.cn.indexer.parser.
→ResolveSolrField">
        <constructor-arg name="name" value="fileID"/>
    </bean>
```

8.3.15 dryad.fullText

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dryad.fullText" class="org.dataone.cn.indexer.
→parser.FullTextSolrField">
            <constructor-arg name="name" value="text"/>
            <constructor-arg name="xpath" value="//*/text()"/>
            <property name="combineNodes" value="true"/>
    </bean>
```

Dublin Core, Extended

Describes parser configuration for: dublinCoreExtendedSubprocessor

9.1 Format IDs Processed

This parser processes the following DataONE format IDs:

- DataONE Dublin Core Extended v1.0
  formatId: `http://ns.dataone.org/metadata/schema/onedcx/v1.0`

A full list of DataONE format IDs can be found at https://cn.dataone.org/cn/v2/formats/

9.2 Fields

The following fields in the solr index are populated from values retrieved from this type of metadata document. Note that these are in addition to the information extracted from *System Metadata Parser*.

Solr Field	Multi	Dedupe	Source
Index.abstract	False	False	`//*[local-name() = 'abstract'][1]/text()` Processor: SolrField Configuration: *dc.abstract*
Index.author	False	False	`//*[local-name() = 'creator'][1]/text()` Processor: SolrField Configuration: *dc.author*
Index.authorSurName	False	False	`//*[local-name() = 'creator'][1]/text()` Processor: SolrField Configuration: *dc.authorSurName*
Index.authorSurNameSort	False	False	`//*[local-name() = 'creator'][1]/text()` Processor: SolrField Configuration: *dc.authorSurNameSort*
Index.contactOrganization	True	True	`//*[local-name() = 'creator']/text()` Processor: SolrField Configuration: *dc.contactOrganization*
Index.investigator	True	True	`//*[local-name() = 'creator']/text()` Processor: SolrField Configuration: *dc.investigator*
Index.origin	True	True	`//*[local-name() = 'creator']/text()` Processor: SolrField Configuration: *dc.origin*
Index.pubDate	False	False	`//*[local-name() = 'dateSubmitted']/text()` Processor: SolrField Configuration: *dc.pubDate* Converter: SolrDateConverter
Index.title	False	False	`(//*[local-name() = 'title'][1]/text())[1]` Processor: SolrField

Chapter 9. Dublin Core, Extended

9.3 Bean Configurations

9.3.1 dc.abstract

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc.abstract" class="org.dataone.cn.indexer.parser.
↪SolrField">
            <constructor-arg name="name" value="abstract"/>
            <constructor-arg name="xpath" value="//*[local-name() = 'abstract'][1]/
↪text()"/>
    </bean>
```

9.3.2 dc.author

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc.author" class="org.dataone.cn.indexer.parser.
↪SolrField">
            <constructor-arg name="name" value="author"/>
            <constructor-arg name="xpath" value="//*[local-name() = 'creator'][1]/
↪text()"/>
    </bean>
```

9.3.3 dc.authorSurName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc.authorSurName" class="org.dataone.cn.indexer.
↪parser.SolrField">
            <constructor-arg name="name" value="authorSurName"/>
            <constructor-arg name="xpath" value="//*[local-name() = 'creator'][1]/
↪text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

9.3.4 dc.authorSurNameSort

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc.authorSurNameSort" class="org.dataone.cn.
↪indexer.parser.SolrField">
            <constructor-arg name="name" value="authorSurNameSort"/>
            <constructor-arg name="xpath" value="//*[local-name() = 'creator'][1]/
↪text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

9.3.5 dc.contactOrganization

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dc.contactOrganization" class="org.dataone.cn.
→indexer.parser.SolrField">
            <constructor-arg name="name" value="contactOrganization"/>
            <constructor-arg name="xpath" value="//*[local-name() = 'creator']/text()
→"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

9.3.6 dc.investigator

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dc.investigator" class="org.dataone.cn.indexer.
→parser.SolrField">
            <constructor-arg name="name" value="investigator"/>
            <constructor-arg name="xpath" value="//*[local-name() = 'creator']/text()
→"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

9.3.7 dc.origin

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dc.origin" class="org.dataone.cn.indexer.parser.
→SolrField">
            <constructor-arg name="name" value="origin"/>
            <constructor-arg name="xpath" value="//*[local-name() = 'creator']/text()
→"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

9.3.8 dc.pubDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dc.pubDate" class="org.dataone.cn.indexer.parser.
→SolrField">
            <constructor-arg name="name" value="pubDate"/>
            <constructor-arg name="xpath" value="//*[local-name() = 'dateSubmitted']/
→text()"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

9.3.9 dc.title

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dc.title" class="org.dataone.cn.indexer.parser.
→SolrField">
            <constructor-arg name="name" value="title"/>
            <constructor-arg name="xpath" value="(//*[local-name() = 'title'][1]/
→text())[1]"/>
    </bean>
```

9.3.10 dc.keywords

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dc.keywords" class="org.dataone.cn.indexer.parser.
→SolrField">
            <constructor-arg name="name" value="keywords"/>
            <constructor-arg name="xpath" value="//*[local-name() = 'subject']/text()
→"/>
            <property name="multivalue" value="true"/>
    </bean>
```

9.3.11 dc.beginDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dc.beginDate" class="org.dataone.cn.indexer.parser.
→SolrField">
            <constructor-arg name="name" value="beginDate"/>
            <constructor-arg name="xpath" value="//*[local-name() = 'temporal
→'][not(@xsi:type='dcterms:Period') and not(@xsi:type='dc:Period') and not(@xsi:type=
→'Period')]/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

9.3.12 dc.endDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dc.endDate" class="org.dataone.cn.indexer.parser.
→SolrField">
            <constructor-arg name="name" value="endDate"/>
            <constructor-arg name="xpath" value="//*[local-name() = 'temporal
→'][not(@xsi:type='dcterms:Period') and not(@xsi:type='dc:Period') and not(@xsi:type=
→'Period')]/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

9.3.13 dc.datePeriod

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc.datePeriod" class="org.dataone.cn.indexer.
↪parser.TemporalPeriodSolrField">
            <constructor-arg name="xpath" value="//*[local-name() = 'temporal
↪'][@xsi:type='dcterms:Period' or @xsi:type='dc:Period' or @xsi:type='Period']/text()
↪"/>
    </bean>
```

9.3.14 dc.site

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc.site" class="org.dataone.cn.indexer.parser.
↪SolrField">
            <constructor-arg name="name" value="site"/>
            <constructor-arg name="xpath" value="//*[local-name() = 'spatial
↪'][not(@xsi:type = 'dcterms:Box') and not(@xsi:type = 'dc:Box') and not(@xsi:type =
↪'Box')]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

9.3.15 dc.boxSpatialBoundCoordinates

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc.boxSpatialBoundCoordinates" class="org.dataone.
↪cn.indexer.parser.DublinCoreSpatialBoxBoundingCoordinatesSolrField">
            <constructor-arg name="xpath" value="//*[local-name() = 'spatial
↪'][@xsi:type='dcterms:Box' or @xsi:type='dc:Box' or @xsi:type='Box'][1]/text()[1]"/>
    </bean>
```

9.3.16 dc.boxSpatialGeohash

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc.boxSpatialGeohash" class="org.dataone.cn.
↪indexer.parser.DublinCoreSpatialBoxGeohashSolrField">
            <constructor-arg name="xpath" value="//*[local-name() = 'spatial
↪'][@xsi:type='dcterms:Box' or @xsi:type='dc:Box' or @xsi:type='Box'][1]/text()[1]"/>
    </bean>
```

9.3.17 dc.fileID

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc.fileID" class="org.dataone.cn.indexer.parser.
↪ResolveSolrField">
            <constructor-arg name="name" value="fileID"/>
    </bean>
```

9.3.18 dc.fullText

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dc.fullText" class="org.dataone.cn.indexer.parser.
→FullTextSolrField">
        <constructor-arg name="name" value="text"/>
        <constructor-arg name="xpath" value="//*/text()"/>
        <property name="combineNodes" value="true"/>
    </bean>
```

Dublin Core OAI Subprocessor

Describes parser configuration for: dublinCoreOAISubprocessor

10.1 Format IDs Processed

This parser processes the following DataONE format IDs:

- OAI-PMH Dublin Core v2.0, with online related resource
  formatId: `http://www.openarchives.org/OAI/2.0/oai_dc/`

A full list of DataONE format IDs can be found at https://cn.dataone.org/cn/v2/formats/

10.2 Fields

The following fields in the solr index are populated from values retrieved from this type of metadata document. Note that these are in addition to the information extracted from *System Metadata Parser*.

Solr Field	Multi	Dedup	Source
Index.abstract	False	False	`//*[local-name() = 'description'][1]/text()` Processor: SolrField Configuration: *dc.description*
Index.originator	True	True	`//*[local-name() = 'publisher']/text()` Processor: SolrField Configuration: *dc.publisher*
Index.pubDate	False	False	`//*[local-name() = 'date'][1]/text()` Processor: SolrField Configuration: *dc.date* Converter: SolrDateConverter
Index.investigator	True	True	`//*[local-name() = 'contributor']/text()` Processor: SolrField Configuration: *dc.contributor*
Index.author	False	False	`//*[local-name() = 'creator'][1]/text()` Processor: SolrField Configuration: *dc.author*
Index.authorSurName	False	False	`//*[local-name() = 'creator'][1]/text()` Processor: SolrField Configuration: *dc.authorSurName*
Index. authorSurNameSort	False	False	`//*[local-name() = 'creator'][1]/text()` Processor: SolrField Configuration: *dc.authorSurNameSort*
Index. contactOrganization	True	True	`//*[local-name() = 'creator']/text()` Processor: SolrField Configuration: *dc.contactOrganization*
Index.investigator	True	True	`//*[local-name() = 'creator']/text()` Processor: SolrField

Chapter 10. Dublin Core OAI Subprocessor

10.3 Bean Configurations

10.3.1 dc.description

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc.description" class="org.dataone.cn.indexer.
↪parser.SolrField">
    <constructor-arg name="name" value="abstract"/>
    <constructor-arg name="xpath" value="//*[local-name() = 'description'][1]/text()
↪"/>
</bean>
```

10.3.2 dc.publisher

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc.publisher" class="org.dataone.cn.indexer.parser.
↪SolrField">
    <constructor-arg name="name" value="originator"/>
    <constructor-arg name="xpath" value="//*[local-name() = 'publisher']/text()"/>
    <property name="multivalue" value="true"/>
    <property name="dedupe" value="true"/>
</bean>
```

10.3.3 dc.date

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc.date" class="org.dataone.cn.indexer.parser.
↪SolrField">
    <constructor-arg name="name" value="pubDate"/>
    <constructor-arg name="xpath" value="//*[local-name() = 'date'][1]/text()"/>
    <property name="converter" ref="dateConverter"/>
</bean>
```

10.3.4 dc.contributor

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc.contributor" class="org.dataone.cn.indexer.
↪parser.SolrField">
    <constructor-arg name="name" value="investigator"/>
    <constructor-arg name="xpath" value="//*[local-name() = 'contributor']/text()"/>
    <property name="multivalue" value="true"/>
    <property name="dedupe" value="true"/>
</bean>
```

10.3.5 dc.author

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dc.author" class="org.dataone.cn.indexer.parser.
→SolrField">
        <constructor-arg name="name" value="author"/>
        <constructor-arg name="xpath" value="//*[local-name() = 'creator'][1]/
→text()"/>
    </bean>
```

10.3.6 dc.authorSurName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dc.authorSurName" class="org.dataone.cn.indexer.
→parser.SolrField">
        <constructor-arg name="name" value="authorSurName"/>
        <constructor-arg name="xpath" value="//*[local-name() = 'creator'][1]/
→text()"/>
        <property name="multivalue" value="false"/>
    </bean>
```

10.3.7 dc.authorSurNameSort

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dc.authorSurNameSort" class="org.dataone.cn.
→indexer.parser.SolrField">
        <constructor-arg name="name" value="authorSurNameSort"/>
        <constructor-arg name="xpath" value="//*[local-name() = 'creator'][1]/
→text()"/>
        <property name="multivalue" value="false"/>
    </bean>
```

10.3.8 dc.contactOrganization

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dc.contactOrganization" class="org.dataone.cn.
→indexer.parser.SolrField">
        <constructor-arg name="name" value="contactOrganization"/>
        <constructor-arg name="xpath" value="//*[local-name() = 'creator']/text()
→"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="true"/>
    </bean>
```

10.3.9 dc.investigator

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dc.investigator" class="org.dataone.cn.indexer.
→parser.SolrField">
        <constructor-arg name="name" value="investigator"/>
        <constructor-arg name="xpath" value="//*[local-name() = 'creator']/text()
→"/>
```

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```xml
                <property name="multivalue" value="true"/>
                <property name="dedupe" value="true"/>
        </bean>
```

10.3.10 dc.origin

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc.origin" class="org.dataone.cn.indexer.parser.
↪SolrField">
                <constructor-arg name="name" value="origin"/>
                <constructor-arg name="xpath" value="//*[local-name() = 'creator']/text()
↪"/>
                <property name="multivalue" value="true"/>
                <property name="dedupe" value="true"/>
        </bean>
```

10.3.11 dc.title

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc.title" class="org.dataone.cn.indexer.parser.
↪SolrField">
                <constructor-arg name="name" value="title"/>
                <constructor-arg name="xpath" value="(//*[local-name() = 'title'][1]/
↪text())[1]"/>
        </bean>
```

10.3.12 dc.keywords

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc.keywords" class="org.dataone.cn.indexer.parser.
↪SolrField">
                <constructor-arg name="name" value="keywords"/>
                <constructor-arg name="xpath" value="//*[local-name() = 'subject']/text()
↪"/>
                <property name="multivalue" value="true"/>
        </bean>
```

10.3.13 dc:relation

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc:relation" class="org.dataone.cn.indexer.parser.
↪SolrField">
            <constructor-arg name="name" value="serviceEndpoint"/>
        <constructor-arg name="xpath" value="//*[local-name() = 'relation']/text()"/>
        <property name="multivalue" value="true"/>
 </bean>
```

10.3.14 dc.fullText

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dc.fullText" class="org.dataone.cn.indexer.parser.
→FullTextSolrField">
            <constructor-arg name="name" value="text"/>
            <constructor-arg name="xpath" value="//*/text()"/>
            <property name="combineNodes" value="true"/>
    </bean>
```

Ecological Markup Language, v2.0.0

Describes parser configuration for: eml200Subprocessor

11.1 Format IDs Processed

This parser processes the following DataONE format IDs:

- Ecological Metadata Language, version 2.0.0
  formatId: `eml://ecoinformatics.org/eml-2.0.0`

A full list of DataONE format IDs can be found at https://cn.dataone.org/cn/v2/formats/

11.2 Fields

The following fields in the solr index are populated from values retrieved from this type of metadata document. Note that these are in addition to the information extracted from *System Metadata Parser*.

Solr Field	Multi	Dedupe	Source
Index.abstract	False	False	`//dataset/abstract/descendant::text()` Processor: MergeSolrField Configuration: *eml.abstract*

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.keywords	True	True	`//dataset/keywordSet/keyword/text()` Processor: SolrField Configuration: *eml.keywords*
Index.title	False	False	`//dataset/title/text()` Processor: SolrField Configuration: *eml.title*
Index.project	True	False	`//dataset/project/title/text()` Processor: SolrField Configuration: *eml.project*

Index.southBoundCoord	False	False	`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates/`
			`southBoundingCoordinate/text()`
			
			Processor: SolrField
			Configuration: *eml.southBoundCoord*
			
			Converter: SolrLatitudeConverter

Index.northBoundCoord	False	False	`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates/`
			`northBoundingCoordinate/text()`
			
			Processor: SolrField
			Configuration: *eml.northBoundCoord*
			
			Converter: SolrLatitudeConverter

Index.westBoundCoord	False	False	`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates/`
			`westBoundingCoordinate/text()`
			
			Processor: SolrField
			Configuration: *eml.westBoundCoord*
			
			Converter: SolrLongitudeConverter

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.eastBoundCoord	False	False	`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates/`
			`eastBoundingCoordinate/text()`
			
			Processor: SolrField
			Configuration: *eml.eastBoundCoord*
			
			Converter: SolrLongitudeConverter

Index.site	True	False	`//dataset/coverage/geographicCoverage/`
			`↪geographicDescription/`
			`text()`
			
			Processor: SolrField
			Configuration: *eml.site*

Index.beginDate	False	False	`//dataset/coverage/temporalCoverage/` `↪rangeOfDates/beginDate/` `calendarDate/text()	//dataset/coverage/` `temporalCoverage/singleDateTime/calendarDate/` `↪text()` Processor: SolrField Configuration: *eml.beginDate* Converter: SolrDateConverter
Index.endDate	False	False	`//dataset/coverage/temporalCoverage/` `↪rangeOfDates/endDate/` `calendarDate/text()	//dataset/coverage/` `temporalCoverage/singleDateTime/calendarDate/` `↪text()` Processor: SolrField Configuration: *eml.endDate* Converter: SolrDateConverter

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.pubDate	False	False	`//dataset/pubDate/text()` Processor: SolrField Configuration: *eml.pubDate* Converter: SolrDateConverter

Index.author	False		`//dataset/creator/individualName ->{`
			`↪{[givenName] [surName]`
			`}}; givenName = givenName/text(); surName =␣`
			`↪surName/`
			`text()`
			
			Processor: CommonRootSolrField
			Configuration: *eml.author*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.

Index.authorLastName	True	False	`//dataset/creator/individualName/surName/text()` Processor: SolrField Configuration: *eml.author_lname*

Index.
authorGivenName
	False	False	`//dataset/creator[1]/individualName[1]/`
			`↪givenName/text()`
			
			Processor: SolrField
			Configuration: *eml.authorGivenName*

Index.authorSurName	False	False	`//dataset/creator[1]/individualName[1]/surName/`
			`↪text()`
			
			Processor: SolrField
			Configuration: *eml.authorSurName*

Index.
authorGivenNameSort
	False	False	`//dataset/creator[1]/individualName[1]/`
			`↪givenName/text()`
			
			Processor: SolrField
			Configuration: *eml.authorGivenNameSort*

Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source

Index.authorSurNameSort	False	False	`//dataset/creator[1]/individualName[1]/surName/`
			`↪text()`
			
			Processor: SolrField
			Configuration: *eml.authorSurNameSort*

Index.investigator	True	False	`//dataset/creator/individualName/surName/text()` Processor: SolrField Configuration: *eml.investigator*

Index.origin	False		`//dataset/creator ->{`
			`↪{[individualName]||[organizationName]`
			`}}; organizationName = organizationName/text()`
			`individualName ->{{[givenName] [surName]}};`
			`givenName = givenName/text(); surName = surName/`
			`text()`
			
			Processor: CommonRootSolrField
			Configuration: *eml.origin*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.

Index.contactOrganization	True	True	`//dataset/creator/organizationName/text()` Processor: SolrField Configuration: *eml.contactOrganization*

Index.genus	True	True	`//taxonomicClassification/taxonRankValue[../`
			`↪taxonRankName=`
			`"Genus" or ../taxonRankName="genus"]/text()`
			
			Processor: SolrField
			Configuration: *eml.genus*

Index.species	True	True	`//taxonomicClassification/taxonRankValue[../`
			`↪taxonRankName=`
			`"Species" or ../taxonRankName="species"]/text()`
			
			Processor: SolrField
			Configuration: *eml.species*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.kingdom	True	True	`//taxonomicClassification/taxonRankValue[../` `↪taxonRankName=` `"Kingdom" or ../taxonRankName="kingdom"]/text()` Processor: SolrField Configuration: *eml.kingdom*
Index.order	True	True	`//taxonomicClassification/taxonRankValue[../` `↪taxonRankName=` `"Order" or ../taxonRankName="order"]/text()` Processor: SolrField Configuration: *eml.order*
Index.phylum	True	True	`//taxonomicClassification/taxonRankValue[../` `↪taxonRankName=` `"Phylum" or ../taxonRankName="phylum"]/text() |` `↪//` `taxonomicClassification/taxonRankValue[../` `taxonRankName="Division" or ../taxonRankName=` `"division"]/text()` Processor: SolrField Configuration: *eml.phylum*
Index.family	True	True	`//taxonomicClassification/taxonRankValue[../` `↪taxonRankName=` `"Family" or ../taxonRankName="family"]/text()` Processor: SolrField Configuration: *eml.family*
Index.class	True	True	`//taxonomicClassification/taxonRankValue[../` `↪taxonRankName=` `"Class" or ../taxonRankName="class"]/text()` Processor: SolrField Configuration: *eml.class*

Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source
Index.scientificName	False		```//taxonomicClassification[../taxonRankName=↪"Genus" or ../taxonRankName="genus"] ->{{[genus] [species]}}; genus = ../taxonRankValue/text(); species = taxonRankValue/text()``` Processor: CommonRootSolrField Configuration: *eml.scientificName* Notes: This bean uses a template populated from additional sources. See configuration for more details.
Index.attributeName	True	False	```//dataTable/attributeList/attribute/↪attributeName/text()``` Processor: SolrField Configuration: *eml.attributeName*
Index.attributeLabel	True	False	```//dataTable/attributeList/attribute/↪attributeLabel/text()``` Processor: SolrField Configuration: *eml.attributeLabel*
Index.attributeDescription	True	False	```//dataTable/attributeList/attribute/↪attributeDefinition/text()``` Processor: SolrField Configuration: *eml.attributeDescription*
Index.attributeUnit	True	False	```//dataTable//standardUnit/text()	//dataTable//↪customUnit/text()``` Processor: SolrField Configuration: *eml.attributeUnit*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.attribute	False		`//dataTable/attributeList/attribute ->{` `↪{[attributeName] [` `attributeLabel] [attributeDescription] [` `attributeUnit]}}; attributeName = attributeName/` `text(); attributeLabel = attributeLabel/text();` `attributeDescription = attributeDefinition/` `↪text();` `attributeUnit = .//standardUnit/text()	.//` `customUnit/text()` Processor: CommonRootSolrField Configuration: *eml.attributeText* Notes: This bean uses a template populated from additional sources. See configuration for more details.
Index.fileID			Processor: ResolveSolrField Configuration: *eml.fileID* Notes: SolrField which configures the resolve url for the document being processed. Converter:
Index.text			Processor: AggregateSolrField Configuration: *eml.fullText* Converter:

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.geohash_1	False		`//dataset/coverage/geographicCoverage/` `↪boundingCoordinates` `->{{[northBoundingCoordinate] [` `southBoundingCoordinate]␣` `↪[eastBoundingCoordinate] [` `westBoundingCoordinate]}};␣` `↪northBoundingCoordinate =` ` northBoundingCoordinate/text();` `southBoundingCoordinate =␣` `↪southBoundingCoordinate/` `text(); eastBoundingCoordinate =` `eastBoundingCoordinate/text();` `westBoundingCoordinate = westBoundingCoordinate/` `text()` Processor: CommonRootSolrField Configuration: *eml.geohash1* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter
Index.geohash_2	False		`//dataset/coverage/geographicCoverage/` `↪boundingCoordinates` `->{{[northBoundingCoordinate] [` `southBoundingCoordinate]␣` `↪[eastBoundingCoordinate] [` `westBoundingCoordinate]}};␣` `↪northBoundingCoordinate =` ` northBoundingCoordinate/text();` `southBoundingCoordinate =␣` `↪southBoundingCoordinate/` `text(); eastBoundingCoordinate =` `eastBoundingCoordinate/text();` `westBoundingCoordinate = westBoundingCoordinate/` `text()` Processor: CommonRootSolrField Configuration: *eml.geohash2* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.geohash_3	False		

			``//dataset/coverage/geographicCoverage/
			→boundingCoordinates
			->{{[northBoundingCoordinate] [
			southBoundingCoordinate]␣
			→[eastBoundingCoordinate] [
			westBoundingCoordinate]}};␣
			→northBoundingCoordinate =
			 northBoundingCoordinate/text();
			southBoundingCoordinate =␣
			→southBoundingCoordinate/
			text(); eastBoundingCoordinate =
			eastBoundingCoordinate/text();
			westBoundingCoordinate = westBoundingCoordinate/
			text()```
			
			Processor: CommonRootSolrField
			
			Configuration: *eml.geohash3*
			
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			
			Converter: GeohashConverter

Index.geohash_4	False		

			``//dataset/coverage/geographicCoverage/
			→boundingCoordinates
			->{{[northBoundingCoordinate] [
			southBoundingCoordinate]␣
			→[eastBoundingCoordinate] [
			westBoundingCoordinate]}};␣
			→northBoundingCoordinate =
			 northBoundingCoordinate/text();
			southBoundingCoordinate =␣
			→southBoundingCoordinate/
			text(); eastBoundingCoordinate =
			eastBoundingCoordinate/text();
			westBoundingCoordinate = westBoundingCoordinate/
			text()```
			
			Processor: CommonRootSolrField
			
			Configuration: *eml.geohash4*
			
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			
			Converter: GeohashConverter

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.geohash_5	False		

```
//dataset/coverage/geographicCoverage/
→boundingCoordinates
->{{[northBoundingCoordinate] [
southBoundingCoordinate]␣
→[eastBoundingCoordinate] [
westBoundingCoordinate]}};␣
→northBoundingCoordinate =
 northBoundingCoordinate/text();
southBoundingCoordinate =␣
→southBoundingCoordinate/
text(); eastBoundingCoordinate =
eastBoundingCoordinate/text();
westBoundingCoordinate = westBoundingCoordinate/
text()
```

Processor: CommonRootSolrField

Configuration: *eml.geohash5*

Notes: This bean uses a template populated from additional sources. See configuration for more details.

Converter: GeohashConverter

| *Index.geohash_6* | False | | |

```
//dataset/coverage/geographicCoverage/
→boundingCoordinates
->{{[northBoundingCoordinate] [
southBoundingCoordinate]␣
→[eastBoundingCoordinate] [
westBoundingCoordinate]}};␣
→northBoundingCoordinate =
 northBoundingCoordinate/text();
southBoundingCoordinate =␣
→southBoundingCoordinate/
text(); eastBoundingCoordinate =
eastBoundingCoordinate/text();
westBoundingCoordinate = westBoundingCoordinate/
text()
```

Processor: CommonRootSolrField

Configuration: *eml.geohash6*

Notes: This bean uses a template populated from additional sources. See configuration for more details.

Converter: GeohashConverter

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Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source

Index.geohash_7	False		`//dataset/coverage/geographicCoverage/`
			`→boundingCoordinates`
			`->{{[northBoundingCoordinate] [`
			`southBoundingCoordinate]␣`
			`→[eastBoundingCoordinate] [`
			`westBoundingCoordinate]}};␣`
			`→northBoundingCoordinate =`
			`northBoundingCoordinate/text();`
			`southBoundingCoordinate =␣`
			`→southBoundingCoordinate/`
			`text(); eastBoundingCoordinate =`
			`eastBoundingCoordinate/text();`
			`westBoundingCoordinate = westBoundingCoordinate/`
			`text()`
			
			Processor: CommonRootSolrField
			Configuration: *eml.geohash7*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

Index.geohash_8	False		`//dataset/coverage/geographicCoverage/`
			`→boundingCoordinates`
			`->{{[northBoundingCoordinate] [`
			`southBoundingCoordinate]␣`
			`→[eastBoundingCoordinate] [`
			`westBoundingCoordinate]}};␣`
			`→northBoundingCoordinate =`
			`northBoundingCoordinate/text();`
			`southBoundingCoordinate =␣`
			`→southBoundingCoordinate/`
			`text(); eastBoundingCoordinate =`
			`eastBoundingCoordinate/text();`
			`westBoundingCoordinate = westBoundingCoordinate/`
			`text()`
			
			Processor: CommonRootSolrField
			Configuration: *eml.geohash8*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.geohash_9	False		`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates`
			`->{{[northBoundingCoordinate] [`
			`southBoundingCoordinate]␣`
			`↪[eastBoundingCoordinate] [`
			`westBoundingCoordinate]}};␣`
			`↪northBoundingCoordinate =`
			`northBoundingCoordinate/text();`
			`southBoundingCoordinate =␣`
			`↪southBoundingCoordinate/`
			`text(); eastBoundingCoordinate =`
			`eastBoundingCoordinate/text();`
			`westBoundingCoordinate = westBoundingCoordinate/`
			`text()`
			
			Processor: CommonRootSolrField
			
			Configuration: *eml.geohash9*
			
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			
			Converter: GeohashConverter

Index.isService	False	False	`boolean(//software/implementation/distribution/`
			`↪online/url)`
			
			Processor: SolrField
			
			Configuration: *eml.isService*

Index.serviceTitle	False	False	`//software/title//text()[normalize-space()]` Processor: SolrField Configuration: *eml.serviceTitle*
Index. *serviceDescription*	False	False	`//software/abstract//text()[normalize-space()]` Processor: SolrField Configuration: *eml.serviceDescription*

Index.
serviceEndpoint
	True	False	`//software/implementation/distribution/online/`
			`↪url/text()`
			
			Processor: SolrField
			
			Configuration: *eml.serviceEndpoint*

11.3 Bean Configurations

11.3.1 eml.abstract

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.abstract" class="org.dataone.cn.indexer.parser.MergeSolrField">
        <constructor-arg name="name" value="abstract"/>
        <constructor-arg name="xpath" value="//dataset/abstract/descendant::text()"/>
        <constructor-arg name="delimiter" value=" "/>
        <property name="multivalue" value="false"/>
        <property name="dedupe" value="false"/>
    </bean>
```

11.3.2 eml.keywords

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.keywords" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="keywords"/>
            <constructor-arg name="xpath" value="//dataset/keywordSet/keyword/text()
→"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
        </bean>
```

11.3.3 eml.title

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.title" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="title"/>
            <constructor-arg name="xpath" value="//dataset/title/text()"/>
            <property name="multivalue" value="false"/>
        </bean>
```

11.3.4 eml.project

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.project" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="project"/>
            <constructor-arg name="xpath" value="//dataset/project/title/text()"/>
            <property name="multivalue" value="true"/>
        </bean>
```

11.3.5 eml.southBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.southBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="southBoundCoord"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
→geographicCoverage/boundingCoordinates/southBoundingCoordinate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLatitudeConverter"/>
    </bean>
```

11.3.6 eml.northBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.northBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="northBoundCoord"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
→geographicCoverage/boundingCoordinates/northBoundingCoordinate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLatitudeConverter"/>
    </bean>
```

11.3.7 eml.westBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.westBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="westBoundCoord"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
→geographicCoverage/boundingCoordinates/westBoundingCoordinate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

11.3.8 eml.eastBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.eastBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="eastBoundCoord"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
→geographicCoverage/boundingCoordinates/eastBoundingCoordinate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

11.3.9 eml.site

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.site" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="site"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
→geographicCoverage/geographicDescription/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

11.3.10 eml.beginDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.beginDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="beginDate"/>
            <constructor-arg name="xpath" value="//dataset/coverage/temporalCoverage/
→rangeOfDates/beginDate/calendarDate/text() | //dataset/coverage/temporalCoverage/
→singleDateTime/calendarDate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

11.3.11 eml.endDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.endDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="endDate"/>
            <constructor-arg name="xpath" value="//dataset/coverage/temporalCoverage/
→rangeOfDates/endDate/calendarDate/text() | //dataset/coverage/temporalCoverage/
→singleDateTime/calendarDate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

11.3.12 eml.pubDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.pubDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="pubDate"/>
            <constructor-arg name="xpath" value="//dataset/pubDate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

11.3.13 eml.author

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.author" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="eml.authorNameRoot">
                    <constructor-arg name="name" value="author"/>
    </bean>
```

11.3.14 eml.author_lname

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.author_lname" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorLastName"/>
            <constructor-arg name="xpath" value="//dataset/creator/individualName/
→surName/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

11.3.15 eml.authorGivenName

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.authorGivenName" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorGivenName"/>
            <constructor-arg name="xpath" value="//dataset/creator[1]/
→individualName[1]/givenName/text()"/>
    </bean>
```

11.3.16 eml.authorSurName

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.authorSurName" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorSurName"/>
            <constructor-arg name="xpath" value="//dataset/creator[1]/
→individualName[1]/surName/text()"/>
    </bean>
```

11.3.17 eml.authorGivenNameSort

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.authorGivenNameSort" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorGivenNameSort"/>
            <constructor-arg name="xpath" value="//dataset/creator[1]/
→individualName[1]/givenName/text()"/>
    </bean>
```

11.3.18 eml.authorSurNameSort

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.authorSurNameSort" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorSurNameSort"/>
            <constructor-arg name="xpath" value="//dataset/creator[1]/
→individualName[1]/surName/text()"/>
    </bean>
```

11.3.19 eml.investigator

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.investigator" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="investigator"/>
            <constructor-arg name="xpath" value="//dataset/creator/individualName/
→surName/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

11.3.20 eml.origin

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.origin" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.originRoot">
            <constructor-arg name="name" value="origin"/>
    </bean>
```

11.3.21 eml.contactOrganization

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.contactOrganization" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="contactOrganization"/>
            <constructor-arg name="xpath" value="//dataset/creator/organizationName/
→text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

11.3.22 eml.genus

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.genus" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="genus"/>
            <constructor-arg name="xpath" value="//taxonomicClassification/
→taxonRankValue[../taxonRankName=&quot;Genus&quot; or ../taxonRankName=&quot;genus&
→quot;]/text()"/>
```

```xml
                <property name="multivalue" value="true"/>
                <property name="dedupe" value="true"/>
        </bean>
```

11.3.23 eml.species

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.species" class="org.dataone.cn.indexer.parser.SolrField">
                <constructor-arg name="name" value="species"/>
                <constructor-arg name="xpath" value="//taxonomicClassification/
→taxonRankValue[../taxonRankName=&quot;Species&quot; or ../taxonRankName=&quot;
→species&quot;]/text()"/>
                <property name="multivalue" value="true"/>
                <property name="dedupe" value="true"/>
        </bean>
```

11.3.24 eml.kingdom

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.kingdom" class="org.dataone.cn.indexer.parser.SolrField">
                <constructor-arg name="name" value="kingdom"/>
                <constructor-arg name="xpath" value="//taxonomicClassification/
→taxonRankValue[../taxonRankName=&quot;Kingdom&quot; or ../taxonRankName=&quot;
→kingdom&quot;]/text()"/>
                <property name="multivalue" value="true"/>
                <property name="dedupe" value="true"/>
        </bean>
```

11.3.25 eml.order

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.order" class="org.dataone.cn.indexer.parser.SolrField">
                <constructor-arg name="name" value="order"/>
                <constructor-arg name="xpath" value="//taxonomicClassification/
→taxonRankValue[../taxonRankName=&quot;Order&quot; or ../taxonRankName=&quot;order&
→quot;]/text()"/>
                <property name="multivalue" value="true"/>
                <property name="dedupe" value="true"/>
        </bean>
```

11.3.26 eml.phylum

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.phylum" class="org.dataone.cn.indexer.parser.SolrField">
                <constructor-arg name="name" value="phylum"/>
```

```
            <constructor-arg name="xpath" value="//taxonomicClassification/
↪taxonRankValue[../taxonRankName=&quot;Phylum&quot; or ../taxonRankName=&quot;phylum&
↪quot;]/text() | //taxonomicClassification/taxonRankValue[../taxonRankName=&quot;
↪Division&quot; or ../taxonRankName=&quot;division&quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

11.3.27 eml.family

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.family" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="family"/>
            <constructor-arg name="xpath" value="//taxonomicClassification/
↪taxonRankValue[../taxonRankName=&quot;Family&quot; or ../taxonRankName=&quot;family&
↪quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

11.3.28 eml.class

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.class" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="class"/>
            <constructor-arg name="xpath" value="//taxonomicClassification/
↪taxonRankValue[../taxonRankName=&quot;Class&quot; or ../taxonRankName=&quot;class&
↪quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

11.3.29 eml.scientificName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.scientificName" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="eml.scientificNameRoot">
                <constructor-arg name="name" value="scientificName"/>
    </bean>
```

11.3.30 eml.attributeName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.attributeName" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeName"/>
```

```
            <constructor-arg name="xpath" value="//dataTable/attributeList/attribute/
→attributeName/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
    </bean>
```

11.3.31 eml.attributeLabel

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="eml.attributeLabel" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeLabel"/>
            <constructor-arg name="xpath" value="//dataTable/attributeList/attribute/
→attributeLabel/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
    </bean>
```

11.3.32 eml.attributeDescription

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="eml.attributeDescription" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeDescription"/>
            <constructor-arg name="xpath" value="//dataTable/attributeList/attribute/
→attributeDefinition/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
    </bean>
```

11.3.33 eml.attributeUnit

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="eml.attributeUnit" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeUnit"/>
            <constructor-arg name="xpath" value="//dataTable//standardUnit/text() | /
→/dataTable//customUnit/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
    </bean>
```

11.3.34 eml.attributeText

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="eml.attributeText" class="org.dataone.cn.indexer.parser.CommonRootSolrField"
→p:multivalue="true" p:root-ref="eml.attributeTextRoot">
                <constructor-arg name="name" value="attribute"/>
```

```
        </bean>
```

11.3.35 eml.fileID

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.fileID" class="org.dataone.cn.indexer.parser.ResolveSolrField">
        <constructor-arg name="name" value="fileID"/>
    </bean>
```

11.3.36 eml.fullText

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.fullText" class="org.dataone.cn.indexer.parser.AggregateSolrField">
        <property name="name" value="text"/>
        <property name="solrFields">
                <list>
                <ref bean="eml.text"/>
                <ref bean="eml.attributeName.noDupe"/>
                <ref bean="eml.attributeLabel.noDupe"/>
                <ref bean="eml.attributeDescription.noDupe"/>
                <ref bean="eml.attributeUnit.noDupe"/>
        </list>
        </property>
    </bean>
```

11.3.37 eml.geohash1

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash1" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
        <constructor-arg name="name" value="geohash_1"/>
        <property name="converter" ref="geohashConverter_1"/>
    </bean>
```

11.3.38 eml.geohash2

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash2" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
        <constructor-arg name="name" value="geohash_2"/>
        <property name="converter" ref="geohashConverter_2"/>
    </bean>
```

11.3.39 eml.geohash3

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash3" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
        <constructor-arg name="name" value="geohash_3"/>
        <property name="converter" ref="geohashConverter_3"/>
    </bean>
```

11.3.40 eml.geohash4

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash4" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
        <constructor-arg name="name" value="geohash_4"/>
        <property name="converter" ref="geohashConverter_4"/>
    </bean>
```

11.3.41 eml.geohash5

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash5" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
        <constructor-arg name="name" value="geohash_5"/>
        <property name="converter" ref="geohashConverter_5"/>
    </bean>
```

11.3.42 eml.geohash6

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash6" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
        <constructor-arg name="name" value="geohash_6"/>
        <property name="converter" ref="geohashConverter_6"/>
    </bean>
```

11.3.43 eml.geohash7

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash7" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
        <constructor-arg name="name" value="geohash_7"/>
        <property name="converter" ref="geohashConverter_7"/>
    </bean>
```

11.3.44 eml.geohash8

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash8" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_8"/>
            <property name="converter" ref="geohashConverter_8"/>
    </bean>
```

11.3.45 eml.geohash9

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash9" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_9"/>
            <property name="converter" ref="geohashConverter_9"/>
    </bean>
```

11.3.46 eml.isService

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.isService" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="isService"/>
            <constructor-arg name="xpath" value="boolean(//software/implementation/
→distribution/online/url)"/>
    </bean>
```

11.3.47 eml.serviceTitle

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.serviceTitle" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceTitle"/>
            <constructor-arg name="xpath" value="//software/title//text()[normalize-
→space()]"/>
            <property name="combineNodes" value="true"/>
            <property name="combineDelimiter" value=":"/>
    </bean>
```

11.3.48 eml.serviceDescription

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.serviceDescription" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceDescription"/>
            <constructor-arg name="xpath" value="//software/abstract//
→text()[normalize-space()]"/>
```

(continues on next page)

```xml
            <property name="combineNodes" value="true"/>
            <property name="combineDelimiter" value=":"/>
    </bean>
```

11.3.49 eml.serviceEndpoint

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.serviceEndpoint" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceEndpoint"/>
            <constructor-arg name="xpath" value="//software/implementation/
↪distribution/online/url/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

Ecological Markup Language, v2.0.1

Describes parser configuration for: eml201Subprocessor

12.1 Format IDs Processed

This parser processes the following DataONE format IDs:

- Ecological Metadata Language, version 2.0.1
  formatId: `eml://ecoinformatics.org/eml-2.0.1`

A full list of DataONE format IDs can be found at https://cn.dataone.org/cn/v2/formats/

12.2 Fields

The following fields in the solr index are populated from values retrieved from this type of metadata document. Note that these are in addition to the information extracted from *System Metadata Parser*.

Solr Field	Multi	Dedup	Source
Index.abstract	False	False	`//dataset/abstract/descendant::text()` Processor: MergeSolrField Configuration: *eml.abstract*

Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source
Index.keywords	True	True	`//dataset/keywordSet/keyword/text()` Processor: SolrField Configuration: *eml.keywords*
Index.title	False	False	`//dataset/title/text()` Processor: SolrField Configuration: *eml.title*
Index.project	True	False	`//dataset/project/title/text()` Processor: SolrField Configuration: *eml.project*

Index. southBoundCoord	False	False	`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates/`
			`southBoundingCoordinate/text()`
			
			Processor: SolrField
			Configuration: *eml.southBoundCoord*
			
			Converter: SolrLatitudeConverter

Index. northBoundCoord	False	False	`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates/`
			`northBoundingCoordinate/text()`
			
			Processor: SolrField
			Configuration: *eml.northBoundCoord*
			
			Converter: SolrLatitudeConverter

Index.westBoundCoord	False	False	`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates/`
			`westBoundingCoordinate/text()`
			
			Processor: SolrField
			Configuration: *eml.westBoundCoord*
			
			Converter: SolrLongitudeConverter

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.eastBoundCoord	False	False	`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates/`
			`eastBoundingCoordinate/text()`
			
			Processor: SolrField
			Configuration: *eml.eastBoundCoord*
			
			Converter: SolrLongitudeConverter

Index.site	True	False	`//dataset/coverage/geographicCoverage/`
			`↪geographicDescription/`
			`text()`
			
			Processor: SolrField
			Configuration: *eml.site*

Index.beginDate	False	False	`//dataset/coverage/temporalCoverage/` `↪rangeOfDates/beginDate/` `calendarDate/text()	//dataset/coverage/` `temporalCoverage/singleDateTime/calendarDate/` `↪text()` Processor: SolrField Configuration: *eml.beginDate* Converter: SolrDateConverter
Index.endDate	False	False	`//dataset/coverage/temporalCoverage/` `↪rangeOfDates/endDate/` `calendarDate/text()	//dataset/coverage/` `temporalCoverage/singleDateTime/calendarDate/` `↪text()` Processor: SolrField Configuration: *eml.endDate* Converter: SolrDateConverter

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.pubDate	False	False	`//dataset/pubDate/text()` Processor: SolrField Configuration: *eml.pubDate* Converter: SolrDateConverter

Index.author	False		`//dataset/creator/individualName ->{`
			`↪{[givenName] [surName]`
			`}}; givenName = givenName/text(); surName =␣`
			`↪surName/`
			`text()`
			
			Processor: CommonRootSolrField
			Configuration: *eml.author*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.

Index.authorGivenName	False	False	`//dataset/creator[1]/individualName[1]/`
			`↪givenName/text()`
			
			Processor: SolrField
			Configuration: *eml.authorGivenName*

Index.authorSurName	False	False	`//dataset/creator[1]/individualName[1]/surName/`
			`↪text()`
			
			Processor: SolrField
			Configuration: *eml.authorSurName*

Index.authorGivenNameSort	False	False	`//dataset/creator[1]/individualName[1]/`
			`↪givenName/text()`
			
			Processor: SolrField
			Configuration: *eml.authorGivenNameSort*

Index.authorSurNameSort	False	False	`//dataset/creator[1]/individualName[1]/surName/`
			`↪text()`
			
			Processor: SolrField
			Configuration: *eml.authorSurNameSort*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.authorLastName	True	False	`//dataset/creator/individualName/surName/text()` Processor: SolrField Configuration: *eml.author_lname*
Index.investigator	True	False	`//dataset/creator/individualName/surName/text()` Processor: SolrField Configuration: *eml.investigator*

Index.origin	False		`//dataset/creator ->{`
			`↪{[individualName]||[organizationName]`
			`}}; organizationName = organizationName/text()`
			`individualName ->{{[givenName] [surName]}};`
			`givenName = givenName/text(); surName = surName/`
			`text()`
			
			Processor: CommonRootSolrField
			Configuration: *eml.origin*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.

Index. contactOrganization	True	True	`//dataset/creator/organizationName/text()` Processor: SolrField Configuration: *eml.contactOrganization*

Index.genus	True	True	`//taxonomicClassification/taxonRankValue[../`
			`↪taxonRankName=`
			`"Genus" or ../taxonRankName="genus"]/text()`
			
			Processor: SolrField
			Configuration: *eml.genus*

Index.species	True	True	`//taxonomicClassification/taxonRankValue[../`
			`↪taxonRankName=`
			`"Species" or ../taxonRankName="species"]/text()`
			
			Processor: SolrField
			Configuration: *eml.species*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.kingdom	True	True	`//taxonomicClassification/taxonRankValue[../`
			`↪taxonRankName=`
			`"Kingdom" or ../taxonRankName="kingdom"]/text()`
			
			Processor: SolrField
			Configuration: *eml.kingdom*

Index.order	True	True	`//taxonomicClassification/taxonRankValue[../`
			`↪taxonRankName=`
			`"Order" or ../taxonRankName="order"]/text()`
			
			Processor: SolrField
			Configuration: *eml.order*

Index.phylum	True	True	`//taxonomicClassification/taxonRankValue[../`
			`↪taxonRankName=`
			`"Phylum" or ../taxonRankName="phylum"]/text() |`
			`↪//`
			`taxonomicClassification/taxonRankValue[../`
			`taxonRankName="Division" or ../taxonRankName=`
			`"division"]/text()`
			
			Processor: SolrField
			Configuration: *eml.phylum*

Index.family	True	True	`//taxonomicClassification/taxonRankValue[../`
			`↪taxonRankName=`
			`"Family" or ../taxonRankName="family"]/text()`
			
			Processor: SolrField
			Configuration: *eml.family*

Index.class	True	True	`//taxonomicClassification/taxonRankValue[../`
			`↪taxonRankName=`
			`"Class" or ../taxonRankName="class"]/text()`
			
			Processor: SolrField
			Configuration: *eml.class*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.scientificName	False		`//taxonomicClassification[../taxonRankName=`
			`→"Genus" or ../`
			`taxonRankName="genus"] ->{{[genus] [species]}};`
			`genus = ../taxonRankValue/text(); species =`
			`taxonRankValue/text()`
			
			Processor: CommonRootSolrField
			Configuration: *eml.scientificName*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.

Index.attributeName	True	False	`//dataTable/attributeList/attribute/`
			`→attributeName/text()`
			
			Processor: SolrField
			Configuration: *eml.attributeName*

Index.attributeLabel	True	False	`//dataTable/attributeList/attribute/`
			`→attributeLabel/text()`
			
			Processor: SolrField
			Configuration: *eml.attributeLabel*

Index. attributeDescription	True	False	`//dataTable/attributeList/attribute/`
			`→attributeDefinition/`
			`text()`
			
			Processor: SolrField
			Configuration: *eml.attributeDescription*

Index.attributeUnit	True	False	`//dataTable//standardUnit/text()	//dataTable//` `→customUnit/` `text()` Processor: SolrField Configuration: *eml.attributeUnit*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.attribute	False		`//dataTable/attributeList/attribute ->{` `↪{[attributeName] [` `attributeLabel] [attributeDescription] [` `attributeUnit]}}; attributeName = attributeName/` `text(); attributeLabel = attributeLabel/text();` `attributeDescription = attributeDefinition/` `↪text();` `attributeUnit = .//standardUnit/text()	.//` `customUnit/text()` Processor: CommonRootSolrField Configuration: *eml.attributeText* Notes: This bean uses a template populated from additional sources. See configuration for more details.
Index.fileID			Processor: ResolveSolrField Configuration: *eml.fileID* Notes: SolrField which configures the resolve url for the document being processed. Converter:
Index.text			Processor: AggregateSolrField Configuration: *eml.fullText* Converter:

Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source
Index.geohash_1	False		

			```//dataset/coverage/geographicCoverage/```
			```→boundingCoordinates```
			```->{{[northBoundingCoordinate] [```
			```southBoundingCoordinate]␣```
			```→[eastBoundingCoordinate] [```
			```westBoundingCoordinate]}};␣```
			```→northBoundingCoordinate =```
			``` northBoundingCoordinate/text();```
			```southBoundingCoordinate =␣```
			```→southBoundingCoordinate/```
			```text(); eastBoundingCoordinate =```
			```eastBoundingCoordinate/text();```
			```westBoundingCoordinate = westBoundingCoordinate/```
			```text()```
			
			Processor: CommonRootSolrField
			
			Configuration: *eml.geohash1*
			
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			
			Converter: GeohashConverter

Index.geohash_2	False		

			```//dataset/coverage/geographicCoverage/```
			```→boundingCoordinates```
			```->{{[northBoundingCoordinate] [```
			```southBoundingCoordinate]␣```
			```→[eastBoundingCoordinate] [```
			```westBoundingCoordinate]}};␣```
			```→northBoundingCoordinate =```
			``` northBoundingCoordinate/text();```
			```southBoundingCoordinate =␣```
			```→southBoundingCoordinate/```
			```text(); eastBoundingCoordinate =```
			```eastBoundingCoordinate/text();```
			```westBoundingCoordinate = westBoundingCoordinate/```
			```text()```
			
			Processor: CommonRootSolrField
			
			Configuration: *eml.geohash2*
			
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			
			Converter: GeohashConverter

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source

Index.geohash_3	False		`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates`
			`->{{[northBoundingCoordinate] [`
			`southBoundingCoordinate]␣`
			`↪[eastBoundingCoordinate] [`
			`westBoundingCoordinate]}};␣`
			`↪northBoundingCoordinate =`
			` northBoundingCoordinate/text();`
			`southBoundingCoordinate =␣`
			`↪southBoundingCoordinate/`
			`text(); eastBoundingCoordinate =`
			`eastBoundingCoordinate/text();`
			`westBoundingCoordinate = westBoundingCoordinate/`
			`text()`
			
			Processor: CommonRootSolrField
			Configuration: *eml.geohash3*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

Index.geohash_4	False		`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates`
			`->{{[northBoundingCoordinate] [`
			`southBoundingCoordinate]␣`
			`↪[eastBoundingCoordinate] [`
			`westBoundingCoordinate]}};␣`
			`↪northBoundingCoordinate =`
			` northBoundingCoordinate/text();`
			`southBoundingCoordinate =␣`
			`↪southBoundingCoordinate/`
			`text(); eastBoundingCoordinate =`
			`eastBoundingCoordinate/text();`
			`westBoundingCoordinate = westBoundingCoordinate/`
			`text()`
			
			Processor: CommonRootSolrField
			Configuration: *eml.geohash4*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source
Index.geohash_5	False		

```
//dataset/coverage/geographicCoverage/
↪boundingCoordinates
->{{{[northBoundingCoordinate] [
southBoundingCoordinate]␣
↪[eastBoundingCoordinate] [
westBoundingCoordinate]}}};␣
↪northBoundingCoordinate =
 northBoundingCoordinate/text();
southBoundingCoordinate =␣
↪southBoundingCoordinate/
text(); eastBoundingCoordinate =
eastBoundingCoordinate/text();
westBoundingCoordinate = westBoundingCoordinate/
text()
```

Processor: CommonRootSolrField

Configuration: *eml.geohash5*

Notes: This bean uses a template populated from additional sources. See configuration for more details.

Converter: GeohashConverter

Index.geohash_6	False		

```
//dataset/coverage/geographicCoverage/
↪boundingCoordinates
->{{{[northBoundingCoordinate] [
southBoundingCoordinate]␣
↪[eastBoundingCoordinate] [
westBoundingCoordinate]}}};␣
↪northBoundingCoordinate =
 northBoundingCoordinate/text();
southBoundingCoordinate =␣
↪southBoundingCoordinate/
text(); eastBoundingCoordinate =
eastBoundingCoordinate/text();
westBoundingCoordinate = westBoundingCoordinate/
text()
```

Processor: CommonRootSolrField

Configuration: *eml.geohash6*

Notes: This bean uses a template populated from additional sources. See configuration for more details.

Converter: GeohashConverter

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source
Index.geohash_7	False		`//dataset/coverage/geographicCoverage/` `↪boundingCoordinates` `->{{[northBoundingCoordinate] [` `southBoundingCoordinate]␣` `↪[eastBoundingCoordinate] [` `westBoundingCoordinate]}};␣` `↪northBoundingCoordinate =` ` northBoundingCoordinate/text();` `southBoundingCoordinate =␣` `↪southBoundingCoordinate/` `text(); eastBoundingCoordinate =` `eastBoundingCoordinate/text();` `westBoundingCoordinate = westBoundingCoordinate/` `text()` Processor: CommonRootSolrField Configuration: *eml.geohash7* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter
Index.geohash_8	False		`//dataset/coverage/geographicCoverage/` `↪boundingCoordinates` `->{{[northBoundingCoordinate] [` `southBoundingCoordinate]␣` `↪[eastBoundingCoordinate] [` `westBoundingCoordinate]}};␣` `↪northBoundingCoordinate =` ` northBoundingCoordinate/text();` `southBoundingCoordinate =␣` `↪southBoundingCoordinate/` `text(); eastBoundingCoordinate =` `eastBoundingCoordinate/text();` `westBoundingCoordinate = westBoundingCoordinate/` `text()` Processor: CommonRootSolrField Configuration: *eml.geohash8* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter

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Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.geohash_9	False		`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates`
			`->{{[northBoundingCoordinate] [`
			`southBoundingCoordinate]`␣
			`↪[eastBoundingCoordinate] [`
			`westBoundingCoordinate]}};`␣
			`↪northBoundingCoordinate =`
			`  northBoundingCoordinate/text();`
			`southBoundingCoordinate =`␣
			`↪southBoundingCoordinate/`
			`text(); eastBoundingCoordinate =`
			`eastBoundingCoordinate/text();`
			`westBoundingCoordinate = westBoundingCoordinate/`
			`text()`
			
			Processor: CommonRootSolrField
			Configuration: *eml.geohash9*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

Index.isService	False	False	`boolean(//software/implementation/distribution/`
			`↪online/url)`
			
			Processor: SolrField
			Configuration: *eml.isService*

Index.serviceTitle	False	False	`//software/title//text()[normalize-space()]` Processor: SolrField Configuration: *eml.serviceTitle*
Index. serviceDescription	False	False	`//software/abstract//text()[normalize-space()]` Processor: SolrField Configuration: *eml.serviceDescription*

*Index.
serviceEndpoint*
	True	False	`//software/implementation/distribution/online/`
			`↪url/text()`
			
			Processor: SolrField
			Configuration: *eml.serviceEndpoint*

12.3 Bean Configurations

12.3.1 eml.abstract

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.abstract" class="org.dataone.cn.indexer.parser.MergeSolrField">
     <constructor-arg name="name" value="abstract"/>
     <constructor-arg name="xpath" value="//dataset/abstract/descendant::text()"/>
     <constructor-arg name="delimiter" value=" "/>
     <property name="multivalue" value="false"/>
     <property name="dedupe" value="false"/>
   </bean>
```

12.3.2 eml.keywords

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.keywords" class="org.dataone.cn.indexer.parser.SolrField">
           <constructor-arg name="name" value="keywords"/>
           <constructor-arg name="xpath" value="//dataset/keywordSet/keyword/text()
→"/>
           <property name="multivalue" value="true"/>
           <property name="dedupe" value="true"/>
      </bean>
```

12.3.3 eml.title

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.title" class="org.dataone.cn.indexer.parser.SolrField">
           <constructor-arg name="name" value="title"/>
           <constructor-arg name="xpath" value="//dataset/title/text()"/>
           <property name="multivalue" value="false"/>
      </bean>
```

12.3.4 eml.project

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.project" class="org.dataone.cn.indexer.parser.SolrField">
           <constructor-arg name="name" value="project"/>
           <constructor-arg name="xpath" value="//dataset/project/title/text()"/>
           <property name="multivalue" value="true"/>
      </bean>
```

12.3.5 eml.southBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.southBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="southBoundCoord"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
↪geographicCoverage/boundingCoordinates/southBoundingCoordinate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLatitudeConverter"/>
    </bean>
```

12.3.6 eml.northBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.northBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="northBoundCoord"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
↪geographicCoverage/boundingCoordinates/northBoundingCoordinate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLatitudeConverter"/>
    </bean>
```

12.3.7 eml.westBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.westBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="westBoundCoord"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
↪geographicCoverage/boundingCoordinates/westBoundingCoordinate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

12.3.8 eml.eastBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.eastBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="eastBoundCoord"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
↪geographicCoverage/boundingCoordinates/eastBoundingCoordinate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

12.3.9 eml.site

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.site" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="site"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
↪geographicCoverage/geographicDescription/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

12.3.10 eml.beginDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.beginDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="beginDate"/>
            <constructor-arg name="xpath" value="//dataset/coverage/temporalCoverage/
↪rangeOfDates/beginDate/calendarDate/text() | //dataset/coverage/temporalCoverage/
↪singleDateTime/calendarDate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

12.3.11 eml.endDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.endDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="endDate"/>
            <constructor-arg name="xpath" value="//dataset/coverage/temporalCoverage/
↪rangeOfDates/endDate/calendarDate/text() | //dataset/coverage/temporalCoverage/
↪singleDateTime/calendarDate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

12.3.12 eml.pubDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.pubDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="pubDate"/>
            <constructor-arg name="xpath" value="//dataset/pubDate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

12.3.13 eml.author

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.author" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="eml.authorNameRoot">
                    <constructor-arg name="name" value="author"/>
    </bean>
```

12.3.14 eml.authorGivenName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.authorGivenName" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorGivenName"/>
            <constructor-arg name="xpath" value="//dataset/creator[1]/
→individualName[1]/givenName/text()"/>
    </bean>
```

12.3.15 eml.authorSurName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.authorSurName" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorSurName"/>
            <constructor-arg name="xpath" value="//dataset/creator[1]/
→individualName[1]/surName/text()"/>
    </bean>
```

12.3.16 eml.authorGivenNameSort

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.authorGivenNameSort" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorGivenNameSort"/>
            <constructor-arg name="xpath" value="//dataset/creator[1]/
→individualName[1]/givenName/text()"/>
    </bean>
```

12.3.17 eml.authorSurNameSort

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.authorSurNameSort" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorSurNameSort"/>
            <constructor-arg name="xpath" value="//dataset/creator[1]/
→individualName[1]/surName/text()"/>
    </bean>
```

12.3.18 eml.author_lname

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.author_lname" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorLastName"/>
            <constructor-arg name="xpath" value="//dataset/creator/individualName/
↪surName/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

12.3.19 eml.investigator

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.investigator" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="investigator"/>
            <constructor-arg name="xpath" value="//dataset/creator/individualName/
↪surName/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

12.3.20 eml.origin

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.origin" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="eml.originRoot">
            <constructor-arg name="name" value="origin"/>
    </bean>
```

12.3.21 eml.contactOrganization

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.contactOrganization" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="contactOrganization"/>
            <constructor-arg name="xpath" value="//dataset/creator/organizationName/
↪text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

12.3.22 eml.genus

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.genus" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="genus"/>
```

```
            <constructor-arg name="xpath" value="//taxonomicClassification/
↪taxonRankValue[../taxonRankName=&quot;Genus&quot; or ../taxonRankName=&quot;genus&
↪quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

12.3.23 eml.species

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.species" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="species"/>
            <constructor-arg name="xpath" value="//taxonomicClassification/
↪taxonRankValue[../taxonRankName=&quot;Species&quot; or ../taxonRankName=&quot;
↪species&quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

12.3.24 eml.kingdom

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.kingdom" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="kingdom"/>
            <constructor-arg name="xpath" value="//taxonomicClassification/
↪taxonRankValue[../taxonRankName=&quot;Kingdom&quot; or ../taxonRankName=&quot;
↪kingdom&quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

12.3.25 eml.order

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.order" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="order"/>
            <constructor-arg name="xpath" value="//taxonomicClassification/
↪taxonRankValue[../taxonRankName=&quot;Order&quot; or ../taxonRankName=&quot;order&
↪quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

12.3.26 eml.phylum

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.phylum" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="phylum"/>
            <constructor-arg name="xpath" value="//taxonomicClassification/
→taxonRankValue[../taxonRankName=&quot;Phylum&quot; or ../taxonRankName=&quot;phylum&
→quot;]/text() | //taxonomicClassification/taxonRankValue[../taxonRankName=&quot;
→Division&quot; or ../taxonRankName=&quot;division&quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

12.3.27 eml.family

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.family" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="family"/>
            <constructor-arg name="xpath" value="//taxonomicClassification/
→taxonRankValue[../taxonRankName=&quot;Family&quot; or ../taxonRankName=&quot;family&
→quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

12.3.28 eml.class

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.class" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="class"/>
            <constructor-arg name="xpath" value="//taxonomicClassification/
→taxonRankValue[../taxonRankName=&quot;Class&quot; or ../taxonRankName=&quot;class&
→quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

12.3.29 eml.scientificName

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.scientificName" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.scientificNameRoot">
                    <constructor-arg name="name" value="scientificName"/>
    </bean>
```

12.3.30 eml.attributeName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.attributeName" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="attributeName"/>
        <constructor-arg name="xpath" value="//dataTable/attributeList/attribute/
↪attributeName/text()"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="false"/>
    </bean>
```

12.3.31 eml.attributeLabel

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.attributeLabel" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="attributeLabel"/>
        <constructor-arg name="xpath" value="//dataTable/attributeList/attribute/
↪attributeLabel/text()"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="false"/>
    </bean>
```

12.3.32 eml.attributeDescription

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.attributeDescription" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="attributeDescription"/>
        <constructor-arg name="xpath" value="//dataTable/attributeList/attribute/
↪attributeDefinition/text()"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="false"/>
    </bean>
```

12.3.33 eml.attributeUnit

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.attributeUnit" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="attributeUnit"/>
        <constructor-arg name="xpath" value="//dataTable//standardUnit/text() | /
↪/dataTable//customUnit/text()"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="false"/>
    </bean>
```

12.3.34 eml.attributeText

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.attributeText" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.attributeTextRoot">
                    <constructor-arg name="name" value="attribute"/>
    </bean>
```

12.3.35 eml.fileID

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.fileID" class="org.dataone.cn.indexer.parser.ResolveSolrField">
            <constructor-arg name="name" value="fileID"/>
    </bean>
```

12.3.36 eml.fullText

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.fullText" class="org.dataone.cn.indexer.parser.AggregateSolrField">
            <property name="name" value="text"/>
            <property name="solrFields">
                    <list>
                    <ref bean="eml.text"/>
                    <ref bean="eml.attributeName.noDupe"/>
                    <ref bean="eml.attributeLabel.noDupe"/>
                    <ref bean="eml.attributeDescription.noDupe"/>
                    <ref bean="eml.attributeUnit.noDupe"/>
            </list>
            </property>
    </bean>
```

12.3.37 eml.geohash1

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash1" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_1"/>
            <property name="converter" ref="geohashConverter_1"/>
    </bean>
```

12.3.38 eml.geohash2

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.geohash2" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_2"/>
            <property name="converter" ref="geohashConverter_2"/>
    </bean>
```

12.3.39 eml.geohash3

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.geohash3" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_3"/>
            <property name="converter" ref="geohashConverter_3"/>
    </bean>
```

12.3.40 eml.geohash4

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.geohash4" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_4"/>
            <property name="converter" ref="geohashConverter_4"/>
    </bean>
```

12.3.41 eml.geohash5

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.geohash5" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_5"/>
            <property name="converter" ref="geohashConverter_5"/>
    </bean>
```

12.3.42 eml.geohash6

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.geohash6" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_6"/>
            <property name="converter" ref="geohashConverter_6"/>
    </bean>
```

12.3.43 eml.geohash7

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash7" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_7"/>
            <property name="converter" ref="geohashConverter_7"/>
    </bean>
```

12.3.44 eml.geohash8

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash8" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_8"/>
            <property name="converter" ref="geohashConverter_8"/>
    </bean>
```

12.3.45 eml.geohash9

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash9" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_9"/>
            <property name="converter" ref="geohashConverter_9"/>
    </bean>
```

12.3.46 eml.isService

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.isService" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="isService"/>
            <constructor-arg name="xpath" value="boolean(//software/implementation/
→distribution/online/url)"/>
    </bean>
```

12.3.47 eml.serviceTitle

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.serviceTitle" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceTitle"/>
            <constructor-arg name="xpath" value="//software/title//text()[normalize-
→space()]"/>
            <property name="combineNodes" value="true"/>
```

(continues on next page)

```xml
            <property name="combineDelimiter" value=":"/>
    </bean>
```

12.3.48 eml.serviceDescription

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.serviceDescription" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceDescription"/>
            <constructor-arg name="xpath" value="//software/abstract//
→text()[normalize-space()]"/>
            <property name="combineNodes" value="true"/>
            <property name="combineDelimiter" value=":"/>
    </bean>
```

12.3.49 eml.serviceEndpoint

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.serviceEndpoint" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceEndpoint"/>
            <constructor-arg name="xpath" value="//software/implementation/
→distribution/online/url/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

Ecological Markup Language, v2.1.0

Describes parser configuration for: eml210Subprocessor

13.1 Format IDs Processed

This parser processes the following DataONE format IDs:

- Ecological Metadata Language, version 2.1.0
  formatId: `eml://ecoinformatics.org/eml-2.1.0`

A full list of DataONE format IDs can be found at https://cn.dataone.org/cn/v2/formats/

13.2 Fields

The following fields in the solr index are populated from values retrieved from this type of metadata document. Note that these are in addition to the information extracted from *System Metadata Parser*.

Solr Field	Multi	Dedupe	Source
Index.abstract	False	False	`//dataset/abstract/descendant::text()` Processor: MergeSolrField Configuration: *eml.abstract*

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.keywords	True	True	`//dataset/keywordSet/keyword/text()` Processor: SolrField Configuration: *eml.keywords*
Index.title	False	False	`//dataset/title/text()` Processor: SolrField Configuration: *eml.title*
Index.project	True	False	`//dataset/project/title/text()` Processor: SolrField Configuration: *eml.project*

Index.southBoundCoord	False	False	`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates/`
			`southBoundingCoordinate/text()`
			
			Processor: SolrField
			Configuration: *eml.southBoundCoord*
			
			Converter: SolrLatitudeConverter

Index.northBoundCoord	False	False	`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates/`
			`northBoundingCoordinate/text()`
			
			Processor: SolrField
			Configuration: *eml.northBoundCoord*
			
			Converter: SolrLatitudeConverter

Index.westBoundCoord	False	False	`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates/`
			`westBoundingCoordinate/text()`
			
			Processor: SolrField
			Configuration: *eml.westBoundCoord*
			
			Converter: SolrLongitudeConverter

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.eastBoundCoord	False	False	`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates/`
			`eastBoundingCoordinate/text()`
			
			Processor: SolrField
			
			Configuration: *eml.eastBoundCoord*
			
			Converter: SolrLongitudeConverter

Index.site	True	False	`//dataset/coverage/geographicCoverage/`
			`↪geographicDescription/`
			`text()`
			
			Processor: SolrField
			
			Configuration: *eml.site*

Index.beginDate	False	False	`//dataset/coverage/temporalCoverage/` `↪rangeOfDates/beginDate/` `calendarDate/text()	//dataset/coverage/` `temporalCoverage/singleDateTime/calendarDate/` `↪text()` Processor: SolrField Configuration: *eml.beginDate* Converter: SolrDateConverter
Index.endDate	False	False	`//dataset/coverage/temporalCoverage/` `↪rangeOfDates/endDate/` `calendarDate/text()	//dataset/coverage/` `temporalCoverage/singleDateTime/calendarDate/` `↪text()` Processor: SolrField Configuration: *eml.endDate* Converter: SolrDateConverter

Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source
Index.pubDate	False	False	`//dataset/pubDate/text()` Processor: SolrField Configuration: *eml.pubDate* Converter: SolrDateConverter

Index.author	False		`//dataset/creator/individualName ->{`
			`↪{[givenName] [surName]`
			`}}; givenName = givenName/text(); surName =␣`
			`↪surName/`
			`text()`
			
			Processor: CommonRootSolrField
			Configuration: *eml.author*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.

Index. authorGivenName	False	False	`//dataset/creator[1]/individualName[1]/`
			`↪givenName/text()`
			
			Processor: SolrField
			Configuration: *eml.authorGivenName*

Index.authorSurName	False	False	`//dataset/creator[1]/individualName[1]/surName/`
			`↪text()`
			
			Processor: SolrField
			Configuration: *eml.authorSurName*

Index. authorGivenNameSort	False	False	`//dataset/creator[1]/individualName[1]/`
			`↪givenName/text()`
			
			Processor: SolrField
			Configuration: *eml.authorGivenNameSort*

Index. authorSurNameSort	False	False	`//dataset/creator[1]/individualName[1]/surName/`
			`↪text()`
			
			Processor: SolrField
			Configuration: *eml.authorSurNameSort*

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.authorLastName	True	False	`//dataset/creator/individualName/surName/text()` Processor: SolrField Configuration: *eml.author_lname*
Index.investigator	True	False	`//dataset/creator/individualName/surName/text()` Processor: SolrField Configuration: *eml.investigator*

Index.origin	False		`//dataset/creator ->{`
			`↪{[individualName]||[organizationName]`
			`}}; organizationName = organizationName/text()`
			`individualName ->{{[givenName] [surName]}};`
			`givenName = givenName/text(); surName = surName/`
			`text()`
			
			Processor: CommonRootSolrField
			Configuration: *eml.origin*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.

Index. contactOrganization	True	True	`//dataset/creator/organizationName/text()` Processor: SolrField Configuration: *eml.contactOrganization*

Index.genus	True	True	`//taxonomicClassification/taxonRankValue[../`
			`↪taxonRankName=`
			`"Genus" or ../taxonRankName="genus"]/text()`
			
			Processor: SolrField
			Configuration: *eml.genus*

Index.species	True	True	`//taxonomicClassification/taxonRankValue[../`
			`↪taxonRankName=`
			`"Species" or ../taxonRankName="species"]/text()`
			
			Processor: SolrField
			Configuration: *eml.species*

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.kingdom	True	True	`//taxonomicClassification/taxonRankValue[../` `↪taxonRankName=` `"Kingdom" or ../taxonRankName="kingdom"]/text()` Processor: SolrField Configuration: *eml.kingdom*
Index.order	True	True	`//taxonomicClassification/taxonRankValue[../` `↪taxonRankName=` `"Order" or ../taxonRankName="order"]/text()` Processor: SolrField Configuration: *eml.order*
Index.phylum	True	True	`//taxonomicClassification/taxonRankValue[../` `↪taxonRankName=` `"Phylum" or ../taxonRankName="phylum"]/text() |` `↪//` `taxonomicClassification/taxonRankValue[../` `taxonRankName="Division" or ../taxonRankName=` `"division"]/text()` Processor: SolrField Configuration: *eml.phylum*
Index.family	True	True	`//taxonomicClassification/taxonRankValue[../` `↪taxonRankName=` `"Family" or ../taxonRankName="family"]/text()` Processor: SolrField Configuration: *eml.family*
Index.class	True	True	`//taxonomicClassification/taxonRankValue[../` `↪taxonRankName=` `"Class" or ../taxonRankName="class"]/text()` Processor: SolrField Configuration: *eml.class*

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
| *Index.scientificName* | False | | ```
//taxonomicClassification[../taxonRankName=
↪"Genus" or ../
taxonRankName="genus"] ->{{[genus] [species]}};
genus = ../taxonRankValue/text(); species =
taxonRankValue/text()
```<br><br>Processor: CommonRootSolrField<br>Configuration: *eml.scientificName*<br>Notes: This bean uses a template populated from additional sources. See configuration for more details. |
| *Index.attributeName* | True | False | ```
//dataTable/attributeList/attribute/
↪attributeName/text()
```<br><br>Processor: SolrField<br>Configuration: *eml.attributeName* |
| *Index.attributeLabel* | True | False | ```
//dataTable/attributeList/attribute/
↪attributeLabel/text()
```<br><br>Processor: SolrField<br>Configuration: *eml.attributeLabel* |
| *Index. attributeDescription* | True | False | ```
//dataTable/attributeList/attribute/
↪attributeDefinition/
text()
```<br><br>Processor: SolrField<br>Configuration: *eml.attributeDescription* |
| *Index.attributeUnit* | True | False | ```
//dataTable//standardUnit/text() | //dataTable//
↪customUnit/
text()
```<br><br>Processor: SolrField<br>Configuration: *eml.attributeUnit* |

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.attribute	False		`//dataTable/attributeList/attribute ->{` `↪{[attributeName] [` `attributeLabel] [attributeDescription] [` `attributeUnit]}}; attributeName = attributeName/` `text(); attributeLabel = attributeLabel/text();` `attributeDescription = attributeDefinition/` `↪text();` `attributeUnit = .//standardUnit/text()	.//` `customUnit/text()` Processor: CommonRootSolrField Configuration: *eml.attributeText* Notes: This bean uses a template populated from additional sources. See configuration for more details.
Index.fileID			Processor: ResolveSolrField Configuration: *eml.fileID* Notes: SolrField which configures the resolve url for the document being processed. Converter:
Index.text			Processor: AggregateSolrField Configuration: *eml.fullText* Converter:

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.geohash_1	False		
			`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates`
			`->{{[northBoundingCoordinate] [`
			`southBoundingCoordinate]␣`
			`↪[eastBoundingCoordinate] [`
			`westBoundingCoordinate]}};␣`
			`↪northBoundingCoordinate =`
			` northBoundingCoordinate/text();`
			`southBoundingCoordinate =␣`
			`↪southBoundingCoordinate/`
			`text(); eastBoundingCoordinate =`
			`eastBoundingCoordinate/text();`
			`westBoundingCoordinate = westBoundingCoordinate/`
			`text()`
			
			Processor: CommonRootSolrField
			
			Configuration: *eml.geohash1*
			
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			
			Converter: GeohashConverter

Index.geohash_2	False		
			`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates`
			`->{{[northBoundingCoordinate] [`
			`southBoundingCoordinate]␣`
			`↪[eastBoundingCoordinate] [`
			`westBoundingCoordinate]}};␣`
			`↪northBoundingCoordinate =`
			` northBoundingCoordinate/text();`
			`southBoundingCoordinate =␣`
			`↪southBoundingCoordinate/`
			`text(); eastBoundingCoordinate =`
			`eastBoundingCoordinate/text();`
			`westBoundingCoordinate = westBoundingCoordinate/`
			`text()`
			
			Processor: CommonRootSolrField
			
			Configuration: *eml.geohash2*
			
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			
			Converter: GeohashConverter

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source
Index.geohash_3	False		`//dataset/coverage/geographicCoverage/` `↪boundingCoordinates` `->{{[northBoundingCoordinate] [` `southBoundingCoordinate]␣` `↪[eastBoundingCoordinate] [` `westBoundingCoordinate]}};␣` `↪northBoundingCoordinate =` ` northBoundingCoordinate/text();` `southBoundingCoordinate =␣` `↪southBoundingCoordinate/` `text(); eastBoundingCoordinate =` `eastBoundingCoordinate/text();` `westBoundingCoordinate = westBoundingCoordinate/` `text()` Processor: CommonRootSolrField Configuration: *eml.geohash3* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter
Index.geohash_4	False		`//dataset/coverage/geographicCoverage/` `↪boundingCoordinates` `->{{[northBoundingCoordinate] [` `southBoundingCoordinate]␣` `↪[eastBoundingCoordinate] [` `westBoundingCoordinate]}};␣` `↪northBoundingCoordinate =` ` northBoundingCoordinate/text();` `southBoundingCoordinate =␣` `↪southBoundingCoordinate/` `text(); eastBoundingCoordinate =` `eastBoundingCoordinate/text();` `westBoundingCoordinate = westBoundingCoordinate/` `text()` Processor: CommonRootSolrField Configuration: *eml.geohash4* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter

Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source
Index.geohash_5	False		

```
//dataset/coverage/geographicCoverage/
↪boundingCoordinates
->{{[northBoundingCoordinate] [
southBoundingCoordinate]␣
↪[eastBoundingCoordinate] [
westBoundingCoordinate]}};␣
↪northBoundingCoordinate =
 northBoundingCoordinate/text();
southBoundingCoordinate =␣
↪southBoundingCoordinate/
text(); eastBoundingCoordinate =
eastBoundingCoordinate/text();
westBoundingCoordinate = westBoundingCoordinate/
text()
```

Processor: CommonRootSolrField

Configuration: *eml.geohash5*

Notes: This bean uses a template populated from additional sources. See configuration for more details.

Converter: GeohashConverter

Index.geohash_6	False		

```
//dataset/coverage/geographicCoverage/
↪boundingCoordinates
->{{[northBoundingCoordinate] [
southBoundingCoordinate]␣
↪[eastBoundingCoordinate] [
westBoundingCoordinate]}};␣
↪northBoundingCoordinate =
 northBoundingCoordinate/text();
southBoundingCoordinate =␣
↪southBoundingCoordinate/
text(); eastBoundingCoordinate =
eastBoundingCoordinate/text();
westBoundingCoordinate = westBoundingCoordinate/
text()
```

Processor: CommonRootSolrField

Configuration: *eml.geohash6*

Notes: This bean uses a template populated from additional sources. See configuration for more details.

Converter: GeohashConverter

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.geohash_7	False		

```
//dataset/coverage/geographicCoverage/
↪boundingCoordinates
->{{[northBoundingCoordinate] [
southBoundingCoordinate]␣
↪[eastBoundingCoordinate] [
westBoundingCoordinate]}};␣
↪northBoundingCoordinate =
 northBoundingCoordinate/text();
southBoundingCoordinate =␣
↪southBoundingCoordinate/
text(); eastBoundingCoordinate =
eastBoundingCoordinate/text();
westBoundingCoordinate = westBoundingCoordinate/
text()
```

Processor: CommonRootSolrField

Configuration: *eml.geohash7*

Notes: This bean uses a template populated from additional sources. See configuration for more details.

Converter: GeohashConverter

Index.geohash_8	False		

```
//dataset/coverage/geographicCoverage/
↪boundingCoordinates
->{{[northBoundingCoordinate] [
southBoundingCoordinate]␣
↪[eastBoundingCoordinate] [
westBoundingCoordinate]}};␣
↪northBoundingCoordinate =
 northBoundingCoordinate/text();
southBoundingCoordinate =␣
↪southBoundingCoordinate/
text(); eastBoundingCoordinate =
eastBoundingCoordinate/text();
westBoundingCoordinate = westBoundingCoordinate/
text()
```

Processor: CommonRootSolrField

Configuration: *eml.geohash8*

Notes: This bean uses a template populated from additional sources. See configuration for more details.

Converter: GeohashConverter

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.geohash_9	False		`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates`
			`->{{[northBoundingCoordinate] [`
			`southBoundingCoordinate]␣`
			`↪[eastBoundingCoordinate] [`
			`westBoundingCoordinate]}};␣`
			`↪northBoundingCoordinate =`
			`northBoundingCoordinate/text();`
			`southBoundingCoordinate =␣`
			`↪southBoundingCoordinate/`
			`text(); eastBoundingCoordinate =`
			`eastBoundingCoordinate/text();`
			`westBoundingCoordinate = westBoundingCoordinate/`
			`text()`
			
			Processor: CommonRootSolrField
			Configuration: *eml.geohash9*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

Index.isService	False	False	`boolean(//software/implementation/distribution/`
			`↪online/url)`
			
			Processor: SolrField
			Configuration: *eml.isService*

Index.serviceTitle	False	False	`//software/title//text()[normalize-space()]` Processor: SolrField Configuration: *eml.serviceTitle*
Index.serviceDescription	False	False	`//software/abstract//text()[normalize-space()]` Processor: SolrField Configuration: *eml.serviceDescription*

Index.serviceEndpoint	True	False	`//software/implementation/distribution/online/`
			`↪url/text()`
			
			Processor: SolrField
			Configuration: *eml.serviceEndpoint*

13.3 Bean Configurations

13.3.1 eml.abstract

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.abstract" class="org.dataone.cn.indexer.parser.MergeSolrField">
        <constructor-arg name="name" value="abstract"/>
        <constructor-arg name="xpath" value="//dataset/abstract/descendant::text()"/>
        <constructor-arg name="delimiter" value=" "/>
        <property name="multivalue" value="false"/>
        <property name="dedupe" value="false"/>
     </bean>
```

13.3.2 eml.keywords

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.keywords" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="keywords"/>
            <constructor-arg name="xpath" value="//dataset/keywordSet/keyword/text()
→"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
       </bean>
```

13.3.3 eml.title

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.title" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="title"/>
            <constructor-arg name="xpath" value="//dataset/title/text()"/>
            <property name="multivalue" value="false"/>
       </bean>
```

13.3.4 eml.project

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.project" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="project"/>
            <constructor-arg name="xpath" value="//dataset/project/title/text()"/>
            <property name="multivalue" value="true"/>
       </bean>
```

13.3.5 eml.southBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.southBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="southBoundCoord"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
→geographicCoverage/boundingCoordinates/southBoundingCoordinate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLatitudeConverter"/>
    </bean>
```

13.3.6 eml.northBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.northBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="northBoundCoord"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
→geographicCoverage/boundingCoordinates/northBoundingCoordinate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLatitudeConverter"/>
    </bean>
```

13.3.7 eml.westBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.westBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="westBoundCoord"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
→geographicCoverage/boundingCoordinates/westBoundingCoordinate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

13.3.8 eml.eastBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.eastBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="eastBoundCoord"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
→geographicCoverage/boundingCoordinates/eastBoundingCoordinate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

13.3.9 eml.site

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.site" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="site"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
→geographicCoverage/geographicDescription/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

13.3.10 eml.beginDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.beginDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="beginDate"/>
            <constructor-arg name="xpath" value="//dataset/coverage/temporalCoverage/
→rangeOfDates/beginDate/calendarDate/text() | //dataset/coverage/temporalCoverage/
→singleDateTime/calendarDate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

13.3.11 eml.endDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.endDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="endDate"/>
            <constructor-arg name="xpath" value="//dataset/coverage/temporalCoverage/
→rangeOfDates/endDate/calendarDate/text() | //dataset/coverage/temporalCoverage/
→singleDateTime/calendarDate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

13.3.12 eml.pubDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.pubDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="pubDate"/>
            <constructor-arg name="xpath" value="//dataset/pubDate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

13.3.13 eml.author

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.author" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="false" p:root-ref="eml.authorNameRoot">
                    <constructor-arg name="name" value="author"/>
    </bean>
```

13.3.14 eml.authorGivenName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.authorGivenName" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorGivenName"/>
            <constructor-arg name="xpath" value="//dataset/creator[1]/
↪individualName[1]/givenName/text()"/>
    </bean>
```

13.3.15 eml.authorSurName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.authorSurName" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorSurName"/>
            <constructor-arg name="xpath" value="//dataset/creator[1]/
↪individualName[1]/surName/text()"/>
    </bean>
```

13.3.16 eml.authorGivenNameSort

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.authorGivenNameSort" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorGivenNameSort"/>
            <constructor-arg name="xpath" value="//dataset/creator[1]/
↪individualName[1]/givenName/text()"/>
    </bean>
```

13.3.17 eml.authorSurNameSort

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.authorSurNameSort" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorSurNameSort"/>
            <constructor-arg name="xpath" value="//dataset/creator[1]/
↪individualName[1]/surName/text()"/>
    </bean>
```

13.3.18 eml.author_lname

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.author_lname" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorLastName"/>
            <constructor-arg name="xpath" value="//dataset/creator/individualName/
→surName/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

13.3.19 eml.investigator

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.investigator" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="investigator"/>
            <constructor-arg name="xpath" value="//dataset/creator/individualName/
→surName/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

13.3.20 eml.origin

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.origin" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.originRoot">
            <constructor-arg name="name" value="origin"/>
    </bean>
```

13.3.21 eml.contactOrganization

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.contactOrganization" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="contactOrganization"/>
            <constructor-arg name="xpath" value="//dataset/creator/organizationName/
→text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

13.3.22 eml.genus

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.genus" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="genus"/>
```

(continues on next page)

```
            <constructor-arg name="xpath" value="//taxonomicClassification/
↪taxonRankValue[../taxonRankName=&quot;Genus&quot; or ../taxonRankName=&quot;genus&
↪quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

13.3.23 eml.species

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.species" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="species"/>
            <constructor-arg name="xpath" value="//taxonomicClassification/
↪taxonRankValue[../taxonRankName=&quot;Species&quot; or ../taxonRankName=&quot;
↪species&quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

13.3.24 eml.kingdom

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.kingdom" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="kingdom"/>
            <constructor-arg name="xpath" value="//taxonomicClassification/
↪taxonRankValue[../taxonRankName=&quot;Kingdom&quot; or ../taxonRankName=&quot;
↪kingdom&quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

13.3.25 eml.order

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.order" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="order"/>
            <constructor-arg name="xpath" value="//taxonomicClassification/
↪taxonRankValue[../taxonRankName=&quot;Order&quot; or ../taxonRankName=&quot;order&
↪quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

13.3.26 eml.phylum

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.phylum" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="phylum"/>
            <constructor-arg name="xpath" value="//taxonomicClassification/
→taxonRankValue[../taxonRankName=&quot;Phylum&quot; or ../taxonRankName=&quot;phylum&
→quot;]/text() | //taxonomicClassification/taxonRankValue[../taxonRankName=&quot;
→Division&quot; or ../taxonRankName=&quot;division&quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

13.3.27 eml.family

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.family" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="family"/>
            <constructor-arg name="xpath" value="//taxonomicClassification/
→taxonRankValue[../taxonRankName=&quot;Family&quot; or ../taxonRankName=&quot;family&
→quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

13.3.28 eml.class

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.class" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="class"/>
            <constructor-arg name="xpath" value="//taxonomicClassification/
→taxonRankValue[../taxonRankName=&quot;Class&quot; or ../taxonRankName=&quot;class&
→quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

13.3.29 eml.scientificName

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.scientificName" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.scientificNameRoot">
                    <constructor-arg name="name" value="scientificName"/>
    </bean>
```

13.3.30 eml.attributeName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.attributeName" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="attributeName"/>
        <constructor-arg name="xpath" value="//dataTable/attributeList/attribute/
→attributeName/text()"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="false"/>
    </bean>
```

13.3.31 eml.attributeLabel

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.attributeLabel" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="attributeLabel"/>
        <constructor-arg name="xpath" value="//dataTable/attributeList/attribute/
→attributeLabel/text()"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="false"/>
    </bean>
```

13.3.32 eml.attributeDescription

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.attributeDescription" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="attributeDescription"/>
        <constructor-arg name="xpath" value="//dataTable/attributeList/attribute/
→attributeDefinition/text()"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="false"/>
    </bean>
```

13.3.33 eml.attributeUnit

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.attributeUnit" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="attributeUnit"/>
        <constructor-arg name="xpath" value="//dataTable//standardUnit/text() | /
→/dataTable//customUnit/text()"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="false"/>
    </bean>
```

13.3.34 eml.attributeText

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.attributeText" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.attributeTextRoot">
                        <constructor-arg name="name" value="attribute"/>
        </bean>
```

13.3.35 eml.fileID

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.fileID" class="org.dataone.cn.indexer.parser.ResolveSolrField">
            <constructor-arg name="name" value="fileID"/>
        </bean>
```

13.3.36 eml.fullText

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.fullText" class="org.dataone.cn.indexer.parser.AggregateSolrField">
            <property name="name" value="text"/>
            <property name="solrFields">
                    <list>
                    <ref bean="eml.text"/>
                    <ref bean="eml.attributeName.noDupe"/>
                    <ref bean="eml.attributeLabel.noDupe"/>
                    <ref bean="eml.attributeDescription.noDupe"/>
                    <ref bean="eml.attributeUnit.noDupe"/>
            </list>
            </property>
        </bean>
```

13.3.37 eml.geohash1

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash1" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_1"/>
            <property name="converter" ref="geohashConverter_1"/>
        </bean>
```

13.3.38 eml.geohash2

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash2" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_2"/>
            <property name="converter" ref="geohashConverter_2"/>
    </bean>
```

13.3.39 eml.geohash3

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash3" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_3"/>
            <property name="converter" ref="geohashConverter_3"/>
    </bean>
```

13.3.40 eml.geohash4

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash4" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_4"/>
            <property name="converter" ref="geohashConverter_4"/>
    </bean>
```

13.3.41 eml.geohash5

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash5" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_5"/>
            <property name="converter" ref="geohashConverter_5"/>
    </bean>
```

13.3.42 eml.geohash6

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash6" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_6"/>
            <property name="converter" ref="geohashConverter_6"/>
    </bean>
```

13.3.43 eml.geohash7

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash7" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_7"/>
            <property name="converter" ref="geohashConverter_7"/>
    </bean>
```

13.3.44 eml.geohash8

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash8" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_8"/>
            <property name="converter" ref="geohashConverter_8"/>
    </bean>
```

13.3.45 eml.geohash9

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash9" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_9"/>
            <property name="converter" ref="geohashConverter_9"/>
    </bean>
```

13.3.46 eml.isService

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.isService" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="isService"/>
            <constructor-arg name="xpath" value="boolean(//software/implementation/
→distribution/online/url)"/>
    </bean>
```

13.3.47 eml.serviceTitle

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.serviceTitle" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceTitle"/>
            <constructor-arg name="xpath" value="//software/title//text()[normalize-
→space()]"/>
            <property name="combineNodes" value="true"/>
```

```
            <property name="combineDelimiter" value=":"/>
    </bean>
```

13.3.48 eml.serviceDescription

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.serviceDescription" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="serviceDescription"/>
        <constructor-arg name="xpath" value="//software/abstract//
→text()[normalize-space()]"/>
        <property name="combineNodes" value="true"/>
        <property name="combineDelimiter" value=":"/>
    </bean>
```

13.3.49 eml.serviceEndpoint

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.serviceEndpoint" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="serviceEndpoint"/>
        <constructor-arg name="xpath" value="//software/implementation/
→distribution/online/url/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

Ecological Markup Language, v2.1.1

Describes parser configuration for: eml211Subprocessor

14.1 Format IDs Processed

This parser processes the following DataONE format IDs:

- Ecological Metadata Language, version 2.1.1
  formatId: `eml://ecoinformatics.org/eml-2.1.1`

A full list of DataONE format IDs can be found at https://cn.dataone.org/cn/v2/formats/

14.2 Fields

The following fields in the solr index are populated from values retrieved from this type of metadata document. Note that these are in addition to the information extracted from *System Metadata Parser*.

Solr Field	Multi	Dedupe	Source
Index.abstract	False	False	`//dataset/abstract/descendant::text()` Processor: MergeSolrField Configuration: *eml.abstract*

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.keywords	True	True	`//dataset/keywordSet/keyword/text()` Processor: SolrField Configuration: *eml.keywords*
Index.title	False	False	`//dataset/title/text()` Processor: SolrField Configuration: *eml.title*
Index.project	True	False	`//dataset/project/title/text()` Processor: SolrField Configuration: *eml.project*

*Index.
southBoundCoord*
	False	False	`//dataset/coverage/geographicCoverage/`
			`→boundingCoordinates/`
			`southBoundingCoordinate/text()`
			
			Processor: SolrField
			Configuration: *eml.southBoundCoord*
			
			Converter: SolrLatitudeConverter

*Index.
northBoundCoord*
	False	False	`//dataset/coverage/geographicCoverage/`
			`→boundingCoordinates/`
			`northBoundingCoordinate/text()`
			
			Processor: SolrField
			Configuration: *eml.northBoundCoord*
			
			Converter: SolrLatitudeConverter

Index.westBoundCoord	False	False	`//dataset/coverage/geographicCoverage/`
			`→boundingCoordinates/`
			`westBoundingCoordinate/text()`
			
			Processor: SolrField
			Configuration: *eml.westBoundCoord*
			
			Converter: SolrLongitudeConverter

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.eastBoundCoord	False	False	`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates/`
			`eastBoundingCoordinate/text()`
			
			Processor: SolrField
			
			Configuration: *eml.eastBoundCoord*
			
			Converter: SolrLongitudeConverter

Index.site	True	False	`//dataset/coverage/geographicCoverage/`
			`↪geographicDescription/`
			`text()`
			
			Processor: SolrField
			
			Configuration: *eml.site*

Index.beginDate	False	False	`//dataset/coverage/temporalCoverage/` `↪rangeOfDates/beginDate/` `calendarDate/text()	//dataset/coverage/` `temporalCoverage/singleDateTime/calendarDate/` `↪text()` Processor: SolrField Configuration: *eml.beginDate* Converter: SolrDateConverter
Index.endDate	False	False	`//dataset/coverage/temporalCoverage/` `↪rangeOfDates/endDate/` `calendarDate/text()	//dataset/coverage/` `temporalCoverage/singleDateTime/calendarDate/` `↪text()` Processor: SolrField Configuration: *eml.endDate* Converter: SolrDateConverter

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Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source
Index.pubDate	False	False	`//dataset/pubDate/text()` Processor: SolrField Configuration: *eml.pubDate* Converter: SolrDateConverter

Index.author	False		`//dataset/creator/individualName ->{`
			`↪{[givenName] [surName]`
			`}}; givenName = givenName/text(); surName =␣`
			`↪surName/`
			`text()`
			
			Processor: CommonRootSolrField
			Configuration: *eml.author*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.

Index.authorGivenName	False	False	`//dataset/creator[1]/individualName[1]/`
			`↪givenName/text()`
			
			Processor: SolrField
			Configuration: *eml.authorGivenName*

Index.authorSurName	False	False	`//dataset/creator[1]/individualName[1]/surName/`
			`↪text()`
			
			Processor: SolrField
			Configuration: *eml.authorSurName*

Index.authorGivenNameSort	False	False	`//dataset/creator[1]/individualName[1]/`
			`↪givenName/text()`
			
			Processor: SolrField
			Configuration: *eml.authorGivenNameSort*

Index.authorSurNameSort	False	False	`//dataset/creator[1]/individualName[1]/surName/`
			`↪text()`
			
			Processor: SolrField
			Configuration: *eml.authorSurNameSort*

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.authorLastName	True	False	`//dataset/creator/individualName/surName/text()` Processor: SolrField Configuration: *eml.author_lname*
Index.investigator	True	False	`//dataset/creator/individualName/surName/text()` Processor: SolrField Configuration: *eml.investigator*

Index.origin	False		`//dataset/creator ->{`
			`↪{[individualName]||[organizationName]`
			`}}; organizationName = organizationName/text()`
			`individualName ->{{[givenName] [surName]}};`
			`givenName = givenName/text(); surName = surName/`
			`text()`
			
			Processor: CommonRootSolrField
			Configuration: *eml.origin*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.

Index.contactOrganization	True	True	`//dataset/creator/organizationName/text()` Processor: SolrField Configuration: *eml.contactOrganization*

Index.genus	True	True	`//taxonomicClassification/taxonRankValue[../`
			`↪taxonRankName=`
			`"Genus" or ../taxonRankName="genus"]/text()`
			
			Processor: SolrField
			Configuration: *eml.genus*

Index.species	True	True	`//taxonomicClassification/taxonRankValue[../`
			`↪taxonRankName=`
			`"Species" or ../taxonRankName="species"]/text()`
			
			Processor: SolrField
			Configuration: *eml.species*

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Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.kingdom	True	True	`//taxonomicClassification/taxonRankValue[../`
			`↪taxonRankName=`
			`"Kingdom" or ../taxonRankName="kingdom"]/text()`
			
			Processor: SolrField
			Configuration: *eml.kingdom*

Index.order	True	True	`//taxonomicClassification/taxonRankValue[../`
			`↪taxonRankName=`
			`"Order" or ../taxonRankName="order"]/text()`
			
			Processor: SolrField
			Configuration: *eml.order*

Index.phylum	True	True	`//taxonomicClassification/taxonRankValue[../`
			`↪taxonRankName=`
			`"Phylum" or ../taxonRankName="phylum"]/text() |␣`
			`↪//`
			`taxonomicClassification/taxonRankValue[../`
			`taxonRankName="Division" or ../taxonRankName=`
			`"division"]/text()`
			
			Processor: SolrField
			Configuration: *eml.phylum*

Index.family	True	True	`//taxonomicClassification/taxonRankValue[../`
			`↪taxonRankName=`
			`"Family" or ../taxonRankName="family"]/text()`
			
			Processor: SolrField
			Configuration: *eml.family*

Index.class	True	True	`//taxonomicClassification/taxonRankValue[../`
			`↪taxonRankName=`
			`"Class" or ../taxonRankName="class"]/text()`
			
			Processor: SolrField
			Configuration: *eml.class*

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Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.scientificName	False		//taxonomicClassification[../taxonRankName= →"Genus" **or** ../ taxonRankName="genus"] ->{{[genus] [species]}}; genus = ../taxonRankValue/text(); species = taxonRankValue/text() Processor: CommonRootSolrField Configuration: *eml.scientificName* Notes: This bean uses a template populated from additional sources. See configuration for more details.
Index.attributeName	True	False	//dataTable/attributeList/attribute/ →attributeName/text() Processor: SolrField Configuration: *eml.attributeName*
Index.attributeLabel	True	False	//dataTable/attributeList/attribute/ →attributeLabel/text() Processor: SolrField Configuration: *eml.attributeLabel*
Index. *attributeDescription*	True	False	//dataTable/attributeList/attribute/ →attributeDefinition/ text() Processor: SolrField Configuration: *eml.attributeDescription*
Index.attributeUnit	True	False	//dataTable//standardUnit/text() | //dataTable// →customUnit/ text() Processor: SolrField Configuration: *eml.attributeUnit*

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Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
| *Index.attribute* | False | | ```
//dataTable/attributeList/attribute ->{
↪{[attributeName] [
attributeLabel] [attributeDescription] [
attributeUnit]}}; attributeName = attributeName/
text(); attributeLabel = attributeLabel/text();
attributeDescription = attributeDefinition/
↪text();
attributeUnit = .//standardUnit/text() | .//
customUnit/text()
```<br><br>Processor: CommonRootSolrField<br>Configuration: *eml.attributeText*<br>Notes: This bean uses a template populated from additional sources. See configuration for more details. |
| *Index.fileID* | | | Processor: ResolveSolrField
Configuration: *eml.fileID*
Notes: SolrField which configures the resolve url for the document being processed.
Converter: |
| *Index.text* | | | Processor: AggregateSolrField
Configuration: *eml.fullText*

Converter: |

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Solr Field	Multi	Dedupe	Source
Index.geohash_1	False		`//dataset/coverage/geographicCoverage/` `↪boundingCoordinates` `->{{[northBoundingCoordinate] [` `southBoundingCoordinate]␣` `↪[eastBoundingCoordinate] [` `westBoundingCoordinate]}};␣` `↪northBoundingCoordinate =` `northBoundingCoordinate/text();` `southBoundingCoordinate =␣` `↪southBoundingCoordinate/` `text(); eastBoundingCoordinate =` `eastBoundingCoordinate/text();` `westBoundingCoordinate = westBoundingCoordinate/` `text()` Processor: CommonRootSolrField Configuration: *eml.geohash1* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter
Index.geohash_2	False		`//dataset/coverage/geographicCoverage/` `↪boundingCoordinates` `->{{[northBoundingCoordinate] [` `southBoundingCoordinate]␣` `↪[eastBoundingCoordinate] [` `westBoundingCoordinate]}};␣` `↪northBoundingCoordinate =` `northBoundingCoordinate/text();` `southBoundingCoordinate =␣` `↪southBoundingCoordinate/` `text(); eastBoundingCoordinate =` `eastBoundingCoordinate/text();` `westBoundingCoordinate = westBoundingCoordinate/` `text()` Processor: CommonRootSolrField Configuration: *eml.geohash2* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter

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Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source

Index.geohash_3	False		`//dataset/coverage/geographicCoverage/`
			`→boundingCoordinates`
			`->{{[northBoundingCoordinate] [`
			`southBoundingCoordinate]␣`
			`→[eastBoundingCoordinate] [`
			`westBoundingCoordinate]}};␣`
			`→northBoundingCoordinate =`
			` northBoundingCoordinate/text();`
			`southBoundingCoordinate =␣`
			`→southBoundingCoordinate/`
			`text(); eastBoundingCoordinate =`
			`eastBoundingCoordinate/text();`
			`westBoundingCoordinate = westBoundingCoordinate/`
			`text()`
			
			Processor: CommonRootSolrField
			
			Configuration: *eml.geohash3*
			
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			
			Converter: GeohashConverter

Index.geohash_4	False		`//dataset/coverage/geographicCoverage/`
			`→boundingCoordinates`
			`->{{[northBoundingCoordinate] [`
			`southBoundingCoordinate]␣`
			`→[eastBoundingCoordinate] [`
			`westBoundingCoordinate]}};␣`
			`→northBoundingCoordinate =`
			` northBoundingCoordinate/text();`
			`southBoundingCoordinate =␣`
			`→southBoundingCoordinate/`
			`text(); eastBoundingCoordinate =`
			`eastBoundingCoordinate/text();`
			`westBoundingCoordinate = westBoundingCoordinate/`
			`text()`
			
			Processor: CommonRootSolrField
			
			Configuration: *eml.geohash4*
			
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			
			Converter: GeohashConverter

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Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.geohash_5	False		`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates`
			`->{{[northBoundingCoordinate] [`
			`southBoundingCoordinate]␣`
			`↪[eastBoundingCoordinate] [`
			`westBoundingCoordinate]}};␣`
			`↪northBoundingCoordinate =`
			` northBoundingCoordinate/text();`
			`southBoundingCoordinate =␣`
			`↪southBoundingCoordinate/`
			`text(); eastBoundingCoordinate =`
			`eastBoundingCoordinate/text();`
			`westBoundingCoordinate = westBoundingCoordinate/`
			`text()`
			
			Processor: CommonRootSolrField
			Configuration: *eml.geohash5*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

Index.geohash_6	False		`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates`
			`->{{[northBoundingCoordinate] [`
			`southBoundingCoordinate]␣`
			`↪[eastBoundingCoordinate] [`
			`westBoundingCoordinate]}};␣`
			`↪northBoundingCoordinate =`
			` northBoundingCoordinate/text();`
			`southBoundingCoordinate =␣`
			`↪southBoundingCoordinate/`
			`text(); eastBoundingCoordinate =`
			`eastBoundingCoordinate/text();`
			`westBoundingCoordinate = westBoundingCoordinate/`
			`text()`
			
			Processor: CommonRootSolrField
			Configuration: *eml.geohash6*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

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Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.geohash_7	False		

			`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates`
			`->{{[northBoundingCoordinate] [`
			`southBoundingCoordinate]␣`
			`↪[eastBoundingCoordinate] [`
			`westBoundingCoordinate]}};␣`
			`↪northBoundingCoordinate =`
			` northBoundingCoordinate/text();`
			`southBoundingCoordinate =␣`
			`↪southBoundingCoordinate/`
			`text(); eastBoundingCoordinate =`
			`eastBoundingCoordinate/text();`
			`westBoundingCoordinate = westBoundingCoordinate/`
			`text()`
			
			Processor: CommonRootSolrField
			
			Configuration: *eml.geohash7*
			
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			
			Converter: GeohashConverter

Index.geohash_8	False		

			`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates`
			`->{{[northBoundingCoordinate] [`
			`southBoundingCoordinate]␣`
			`↪[eastBoundingCoordinate] [`
			`westBoundingCoordinate]}};␣`
			`↪northBoundingCoordinate =`
			` northBoundingCoordinate/text();`
			`southBoundingCoordinate =␣`
			`↪southBoundingCoordinate/`
			`text(); eastBoundingCoordinate =`
			`eastBoundingCoordinate/text();`
			`westBoundingCoordinate = westBoundingCoordinate/`
			`text()`
			
			Processor: CommonRootSolrField
			
			Configuration: *eml.geohash8*
			
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			
			Converter: GeohashConverter

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Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.geohash_9	False		`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates`
			`->{{[northBoundingCoordinate] [`
			`southBoundingCoordinate]␣`
			`↪[eastBoundingCoordinate] [`
			`westBoundingCoordinate]}};␣`
			`↪northBoundingCoordinate =`
			` northBoundingCoordinate/text();`
			`southBoundingCoordinate =␣`
			`↪southBoundingCoordinate/`
			`text(); eastBoundingCoordinate =`
			`eastBoundingCoordinate/text();`
			`westBoundingCoordinate = westBoundingCoordinate/`
			`text()`
			
			Processor: CommonRootSolrField
			Configuration: *eml.geohash9*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

Index.isService	False	False	`boolean(//software/implementation/distribution/`
			`↪online/url)`
			
			Processor: SolrField
			Configuration: *eml.isService*

Index.serviceTitle	False	False	`//software/title//text()[normalize-space()]` Processor: SolrField Configuration: *eml.serviceTitle*
Index. *serviceDescription*	False	False	`//software/abstract//text()[normalize-space()]` Processor: SolrField Configuration: *eml.serviceDescription*

Index.
serviceEndpoint
	True	False	`//software/implementation/distribution/online/`
			`↪url/text()`
			
			Processor: SolrField
			Configuration: *eml.serviceEndpoint*

14.3 Bean Configurations

14.3.1 eml.abstract

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.abstract" class="org.dataone.cn.indexer.parser.MergeSolrField">
        <constructor-arg name="name" value="abstract"/>
        <constructor-arg name="xpath" value="//dataset/abstract/descendant::text()"/>
        <constructor-arg name="delimiter" value=" "/>
        <property name="multivalue" value="false"/>
        <property name="dedupe" value="false"/>
    </bean>
```

14.3.2 eml.keywords

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.keywords" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="keywords"/>
            <constructor-arg name="xpath" value="//dataset/keywordSet/keyword/text()
→"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
        </bean>
```

14.3.3 eml.title

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.title" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="title"/>
            <constructor-arg name="xpath" value="//dataset/title/text()"/>
            <property name="multivalue" value="false"/>
        </bean>
```

14.3.4 eml.project

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.project" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="project"/>
            <constructor-arg name="xpath" value="//dataset/project/title/text()"/>
            <property name="multivalue" value="true"/>
        </bean>
```

14.3.5 eml.southBoundCoord

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.southBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="southBoundCoord"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
↪geographicCoverage/boundingCoordinates/southBoundingCoordinate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLatitudeConverter"/>
    </bean>
```

14.3.6 eml.northBoundCoord

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.northBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="northBoundCoord"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
↪geographicCoverage/boundingCoordinates/northBoundingCoordinate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLatitudeConverter"/>
    </bean>
```

14.3.7 eml.westBoundCoord

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.westBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="westBoundCoord"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
↪geographicCoverage/boundingCoordinates/westBoundingCoordinate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

14.3.8 eml.eastBoundCoord

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.eastBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="eastBoundCoord"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
↪geographicCoverage/boundingCoordinates/eastBoundingCoordinate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

14.3.9 eml.site

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.site" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="site"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
↪geographicCoverage/geographicDescription/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

14.3.10 eml.beginDate

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.beginDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="beginDate"/>
            <constructor-arg name="xpath" value="//dataset/coverage/temporalCoverage/
↪rangeOfDates/beginDate/calendarDate/text() | //dataset/coverage/temporalCoverage/
↪singleDateTime/calendarDate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

14.3.11 eml.endDate

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.endDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="endDate"/>
            <constructor-arg name="xpath" value="//dataset/coverage/temporalCoverage/
↪rangeOfDates/endDate/calendarDate/text() | //dataset/coverage/temporalCoverage/
↪singleDateTime/calendarDate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

14.3.12 eml.pubDate

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.pubDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="pubDate"/>
            <constructor-arg name="xpath" value="//dataset/pubDate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

14.3.13 eml.author

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.author" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="eml.authorNameRoot">
                    <constructor-arg name="name" value="author"/>
    </bean>
```

14.3.14 eml.authorGivenName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.authorGivenName" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorGivenName"/>
            <constructor-arg name="xpath" value="//dataset/creator[1]/
→individualName[1]/givenName/text()"/>
    </bean>
```

14.3.15 eml.authorSurName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.authorSurName" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorSurName"/>
            <constructor-arg name="xpath" value="//dataset/creator[1]/
→individualName[1]/surName/text()"/>
    </bean>
```

14.3.16 eml.authorGivenNameSort

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.authorGivenNameSort" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorGivenNameSort"/>
            <constructor-arg name="xpath" value="//dataset/creator[1]/
→individualName[1]/givenName/text()"/>
    </bean>
```

14.3.17 eml.authorSurNameSort

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.authorSurNameSort" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorSurNameSort"/>
            <constructor-arg name="xpath" value="//dataset/creator[1]/
→individualName[1]/surName/text()"/>
    </bean>
```

14.3.18 eml.author_lname

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="eml.author_lname" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="authorLastName"/>
        <constructor-arg name="xpath" value="//dataset/creator/individualName/
→surName/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

14.3.19 eml.investigator

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="eml.investigator" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="investigator"/>
        <constructor-arg name="xpath" value="//dataset/creator/individualName/
→surName/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

14.3.20 eml.origin

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="eml.origin" class="org.dataone.cn.indexer.parser.CommonRootSolrField"
→p:multivalue="true" p:root-ref="eml.originRoot">
        <constructor-arg name="name" value="origin"/>
    </bean>
```

14.3.21 eml.contactOrganization

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="eml.contactOrganization" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="contactOrganization"/>
        <constructor-arg name="xpath" value="//dataset/creator/organizationName/
→text()"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="true"/>
    </bean>
```

14.3.22 eml.genus

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="eml.genus" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="genus"/>
```

(continues on next page)

```
            <constructor-arg name="xpath" value="//taxonomicClassification/
↪taxonRankValue[../taxonRankName=&quot;Genus&quot; or ../taxonRankName=&quot;genus&
↪quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

14.3.23 eml.species

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.species" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="species"/>
            <constructor-arg name="xpath" value="//taxonomicClassification/
↪taxonRankValue[../taxonRankName=&quot;Species&quot; or ../taxonRankName=&quot;
↪species&quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

14.3.24 eml.kingdom

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.kingdom" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="kingdom"/>
            <constructor-arg name="xpath" value="//taxonomicClassification/
↪taxonRankValue[../taxonRankName=&quot;Kingdom&quot; or ../taxonRankName=&quot;
↪kingdom&quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

14.3.25 eml.order

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.order" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="order"/>
            <constructor-arg name="xpath" value="//taxonomicClassification/
↪taxonRankValue[../taxonRankName=&quot;Order&quot; or ../taxonRankName=&quot;order&
↪quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

14.3.26 eml.phylum

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.phylum" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="phylum"/>
            <constructor-arg name="xpath" value="//taxonomicClassification/
→taxonRankValue[../taxonRankName=&quot;Phylum&quot; or ../taxonRankName=&quot;phylum&
→quot;]/text() | //taxonomicClassification/taxonRankValue[../taxonRankName=&quot;
→Division&quot; or ../taxonRankName=&quot;division&quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

14.3.27 eml.family

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.family" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="family"/>
            <constructor-arg name="xpath" value="//taxonomicClassification/
→taxonRankValue[../taxonRankName=&quot;Family&quot; or ../taxonRankName=&quot;family&
→quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

14.3.28 eml.class

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.class" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="class"/>
            <constructor-arg name="xpath" value="//taxonomicClassification/
→taxonRankValue[../taxonRankName=&quot;Class&quot; or ../taxonRankName=&quot;class&
→quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

14.3.29 eml.scientificName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.scientificName" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.scientificNameRoot">
                    <constructor-arg name="name" value="scientificName"/>
    </bean>
```

14.3.30 eml.attributeName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.attributeName" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeName"/>
            <constructor-arg name="xpath" value="//dataTable/attributeList/attribute/
↪attributeName/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
    </bean>
```

14.3.31 eml.attributeLabel

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.attributeLabel" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeLabel"/>
            <constructor-arg name="xpath" value="//dataTable/attributeList/attribute/
↪attributeLabel/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
    </bean>
```

14.3.32 eml.attributeDescription

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.attributeDescription" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeDescription"/>
            <constructor-arg name="xpath" value="//dataTable/attributeList/attribute/
↪attributeDefinition/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
    </bean>
```

14.3.33 eml.attributeUnit

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.attributeUnit" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeUnit"/>
            <constructor-arg name="xpath" value="//dataTable//standardUnit/text() | /
↪/dataTable//customUnit/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
    </bean>
```

14.3.34 eml.attributeText

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.attributeText" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.attributeTextRoot">
                    <constructor-arg name="name" value="attribute"/>
    </bean>
```

14.3.35 eml.fileID

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.fileID" class="org.dataone.cn.indexer.parser.ResolveSolrField">
            <constructor-arg name="name" value="fileID"/>
    </bean>
```

14.3.36 eml.fullText

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.fullText" class="org.dataone.cn.indexer.parser.AggregateSolrField">
            <property name="name" value="text"/>
            <property name="solrFields">
                    <list>
                    <ref bean="eml.text"/>
                    <ref bean="eml.attributeName.noDupe"/>
                    <ref bean="eml.attributeLabel.noDupe"/>
                    <ref bean="eml.attributeDescription.noDupe"/>
                    <ref bean="eml.attributeUnit.noDupe"/>
            </list>
            </property>
    </bean>
```

14.3.37 eml.geohash1

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash1" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_1"/>
            <property name="converter" ref="geohashConverter_1"/>
    </bean>
```

14.3.38 eml.geohash2

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="eml.geohash2" class="org.dataone.cn.indexer.parser.CommonRootSolrField"
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_2"/>
            <property name="converter" ref="geohashConverter_2"/>
    </bean>
```

14.3.39 eml.geohash3

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="eml.geohash3" class="org.dataone.cn.indexer.parser.CommonRootSolrField"
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_3"/>
            <property name="converter" ref="geohashConverter_3"/>
    </bean>
```

14.3.40 eml.geohash4

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="eml.geohash4" class="org.dataone.cn.indexer.parser.CommonRootSolrField"
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_4"/>
            <property name="converter" ref="geohashConverter_4"/>
    </bean>
```

14.3.41 eml.geohash5

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="eml.geohash5" class="org.dataone.cn.indexer.parser.CommonRootSolrField"
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_5"/>
            <property name="converter" ref="geohashConverter_5"/>
    </bean>
```

14.3.42 eml.geohash6

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="eml.geohash6" class="org.dataone.cn.indexer.parser.CommonRootSolrField"
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_6"/>
            <property name="converter" ref="geohashConverter_6"/>
    </bean>
```

14.3.43 eml.geohash7

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.geohash7" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_7"/>
            <property name="converter" ref="geohashConverter_7"/>
    </bean>
```

14.3.44 eml.geohash8

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.geohash8" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_8"/>
            <property name="converter" ref="geohashConverter_8"/>
    </bean>
```

14.3.45 eml.geohash9

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.geohash9" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_9"/>
            <property name="converter" ref="geohashConverter_9"/>
    </bean>
```

14.3.46 eml.isService

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.isService" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="isService"/>
            <constructor-arg name="xpath" value="boolean(//software/implementation/
↪distribution/online/url)"/>
    </bean>
```

14.3.47 eml.serviceTitle

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.serviceTitle" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceTitle"/>
            <constructor-arg name="xpath" value="//software/title//text()[normalize-
↪space()]"/>
            <property name="combineNodes" value="true"/>
```

```
            <property name="combineDelimiter" value=":"/>
    </bean>
```

14.3.48 eml.serviceDescription

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.serviceDescription" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceDescription"/>
            <constructor-arg name="xpath" value="//software/abstract//
↪text()[normalize-space()]"/>
            <property name="combineNodes" value="true"/>
            <property name="combineDelimiter" value=":"/>
    </bean>
```

14.3.49 eml.serviceEndpoint

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.serviceEndpoint" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceEndpoint"/>
            <constructor-arg name="xpath" value="//software/implementation/
↪distribution/online/url/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

Ecological Markup Language, v2.2.0

Describes parser configuration for: eml220Subprocessor

15.1 Format IDs Processed

This parser processes the following DataONE format IDs:

- Ecological Metadata Language, version 2.2.0
  formatId: `https://eml.ecoinformatics.org/eml-2.2.0`

A full list of DataONE format IDs can be found at https://cn.dataone.org/cn/v2/formats/

15.2 Fields

The following fields in the solr index are populated from values retrieved from this type of metadata document. Note that these are in addition to the information extracted from *System Metadata Parser*.

Solr Field	Multi	Dedupe	Source
Index.abstract	False	False	`//dataset/abstract/descendant::text()` Processor: MergeSolrField Configuration: *eml.abstract*

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.keywords	True	True	`//dataset/keywordSet/keyword/text()` Processor: SolrField Configuration: *eml.keywords*
Index.title	False	False	`//dataset/title/text()` Processor: SolrField Configuration: *eml.title*
Index.project	True	False	`//dataset/project/title/text()` Processor: SolrField Configuration: *eml.project*
Index.funding	True	False	`//dataset/project/funding/descendant::text()` Processor: SolrField Configuration: *eml.funding*
Index.funderName	True	False	`//dataset/project/award/funderName/text()` Processor: SolrField Configuration: *eml.funderName*
Index. funderIdentifier	True	False	`//dataset/project/award/funderIdentifier/text()` Processor: SolrField Configuration: *eml.funderIdentifier*
Index.awardNumber	True	False	`//dataset/project/award/awardNumber/text()` Processor: SolrField Configuration: *eml.awardNumber*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.awardTitle	True	False	`//dataset/project/award/title/text()` Processor: SolrField Configuration: *eml.awardTitle*

Index.southBoundCoord	False	False	`//dataset/coverage/geographicCoverage/`
			`→boundingCoordinates/`
			`southBoundingCoordinate/text()`
			
			Processor: SolrField
			Configuration: *eml.southBoundCoord*
			
			Converter: SolrLatitudeConverter

Index.northBoundCoord	False	False	`//dataset/coverage/geographicCoverage/`
			`→boundingCoordinates/`
			`northBoundingCoordinate/text()`
			
			Processor: SolrField
			Configuration: *eml.northBoundCoord*
			
			Converter: SolrLatitudeConverter

Index.westBoundCoord	False	False	`//dataset/coverage/geographicCoverage/`
			`→boundingCoordinates/`
			`westBoundingCoordinate/text()`
			
			Processor: SolrField
			Configuration: *eml.westBoundCoord*
			
			Converter: SolrLongitudeConverter

Index.eastBoundCoord	False	False	`//dataset/coverage/geographicCoverage/`
			`→boundingCoordinates/`
			`eastBoundingCoordinate/text()`
			
			Processor: SolrField
			Configuration: *eml.eastBoundCoord*
			
			Converter: SolrLongitudeConverter

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.site	True	False	`//dataset/coverage/geographicCoverage/` `↪geographicDescription/` `text()` Processor: SolrField Configuration: *eml.site*
Index.beginDate	False	False	`//dataset/coverage/temporalCoverage/` `↪rangeOfDates/beginDate/` `calendarDate/text() | //dataset/coverage/` `temporalCoverage/singleDateTime/calendarDate/` `↪text()` Processor: SolrField Configuration: *eml.beginDate* Converter: SolrDateConverter
Index.endDate	False	False	`//dataset/coverage/temporalCoverage/` `↪rangeOfDates/endDate/` `calendarDate/text() | //dataset/coverage/` `temporalCoverage/singleDateTime/calendarDate/` `↪text()` Processor: SolrField Configuration: *eml.endDate* Converter: SolrDateConverter
Index.pubDate	False	False	`//dataset/pubDate/text()` Processor: SolrField Configuration: *eml.pubDate* Converter: SolrDateConverter

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.author	False		`//dataset/creator/individualName ->{` `↪{[givenName] [surName]` `}}; givenName = givenName/text(); surName =␣` `↪surName/` `text()` Processor: CommonRootSolrField Configuration: *eml.author* Notes: This bean uses a template populated from additional sources. See configuration for more details.
Index. *authorGivenName*	False	False	`//dataset/creator[1]/individualName[1]/` `↪givenName/text()` Processor: SolrField Configuration: *eml.authorGivenName*
Index.authorSurName	False	False	`//dataset/creator[1]/individualName[1]/surName/` `↪text()` Processor: SolrField Configuration: *eml.authorSurName*
Index. *authorGivenNameSort*	False	False	`//dataset/creator[1]/individualName[1]/` `↪givenName/text()` Processor: SolrField Configuration: *eml.authorGivenNameSort*
Index. *authorSurNameSort*	False	False	`//dataset/creator[1]/individualName[1]/surName/` `↪text()` Processor: SolrField Configuration: *eml.authorSurNameSort*
Index.authorLastName	True	False	`//dataset/creator/individualName/surName/text()` Processor: SolrField Configuration: *eml.author_lname*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.investigator	True	False	`//dataset/creator/individualName/surName/text()` Processor: SolrField Configuration: *eml.investigator*

Index.origin	False		`//dataset/creator ->{`
			`↪{[individualName]||[organizationName]`
			`}}; organizationName = organizationName/text()`
			`individualName ->{{[givenName] [surName]}};`
			`givenName = givenName/text(); surName = surName/`
			`text()`
			
			Processor: CommonRootSolrField
			Configuration: *eml.origin*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.

Index.contactOrganization	True	True	`//dataset/creator/organizationName/text()` Processor: SolrField Configuration: *eml.contactOrganization*

Index.genus	True	True	`//taxonomicClassification/taxonRankValue[../`
			`↪taxonRankName=`
			`"Genus" or ../taxonRankName="genus"]/text()`
			
			Processor: SolrField
			Configuration: *eml.genus*

Index.species	True	True	`//taxonomicClassification/taxonRankValue[../`
			`↪taxonRankName=`
			`"Species" or ../taxonRankName="species"]/text()`
			
			Processor: SolrField
			Configuration: *eml.species*

Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source
Index.kingdom	True	True	`//taxonomicClassification/taxonRankValue[../` `↪taxonRankName=` `"Kingdom" or ../taxonRankName="kingdom"]/text()` Processor: SolrField Configuration: *eml.kingdom*
Index.order	True	True	`//taxonomicClassification/taxonRankValue[../` `↪taxonRankName=` `"Order" or ../taxonRankName="order"]/text()` Processor: SolrField Configuration: *eml.order*
Index.phylum	True	True	`//taxonomicClassification/taxonRankValue[../` `↪taxonRankName=` `"Phylum" or ../taxonRankName="phylum"]/text() |` `↪//` `taxonomicClassification/taxonRankValue[../` `taxonRankName="Division" or ../taxonRankName=` `"division"]/text()` Processor: SolrField Configuration: *eml.phylum*
Index.family	True	True	`//taxonomicClassification/taxonRankValue[../` `↪taxonRankName=` `"Family" or ../taxonRankName="family"]/text()` Processor: SolrField Configuration: *eml.family*
Index.class	True	True	`//taxonomicClassification/taxonRankValue[../` `↪taxonRankName=` `"Class" or ../taxonRankName="class"]/text()` Processor: SolrField Configuration: *eml.class*

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.scientificName	False		`//taxonomicClassification[../taxonRankName=`
			`→"Genus" or ../`
			`taxonRankName="genus"] ->{{[genus] [species]}};`
			`genus = ../taxonRankValue/text(); species =`
			`taxonRankValue/text()`
			
			Processor: CommonRootSolrField
			Configuration: *eml.scientificName*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.

Index.attributeName	True	False	`//dataTable/attributeList/attribute/`
			`→attributeName/text()`
			
			Processor: SolrField
			Configuration: *eml.attributeName*

Index.attributeLabel	True	False	`//dataTable/attributeList/attribute/`
			`→attributeLabel/text()`
			
			Processor: SolrField
			Configuration: *eml.attributeLabel*

*Index.
attributeDescription*
	True	False	`//dataTable/attributeList/attribute/`
			`→attributeDefinition/`
			`text()`
			
			Processor: SolrField
			Configuration: *eml.attributeDescription*

Index.attributeUnit	True	False	`//dataTable//standardUnit/text()	//dataTable//` `→customUnit/` `text()` Processor: SolrField Configuration: *eml.attributeUnit*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source
Index.attribute	False		`//dataTable/attributeList/attribute ->{` `↪{[attributeName] [` `attributeLabel] [attributeDescription] [` `attributeUnit]}}; attributeName = attributeName/` `text(); attributeLabel = attributeLabel/text();` `attributeDescription = attributeDefinition/` `↪text();` `attributeUnit = .//standardUnit/text()	.//` `customUnit/text()` Processor: CommonRootSolrField Configuration: *eml.attributeText* Notes: This bean uses a template populated from additional sources. See configuration for more details.
Index.fileID			Processor: ResolveSolrField Configuration: *eml.fileID* Notes: SolrField which configures the resolve url for the document being processed. Converter:
Index.text			Processor: AggregateSolrField Configuration: *eml.fullText* Converter:

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source
Index.geohash_1	False		

```
//dataset/coverage/geographicCoverage/
↪boundingCoordinates
->{{[northBoundingCoordinate] [
southBoundingCoordinate]␣
↪[eastBoundingCoordinate] [
westBoundingCoordinate]}};␣
↪northBoundingCoordinate =
 northBoundingCoordinate/text();
southBoundingCoordinate =␣
↪southBoundingCoordinate/
text(); eastBoundingCoordinate =
eastBoundingCoordinate/text();
westBoundingCoordinate = westBoundingCoordinate/
text()
```

Processor: CommonRootSolrField

Configuration: *eml.geohash1*

Notes: This bean uses a template populated from additional sources. See configuration for more details.

Converter: GeohashConverter

| *Index.geohash_2* | False | | |

```
//dataset/coverage/geographicCoverage/
↪boundingCoordinates
->{{[northBoundingCoordinate] [
southBoundingCoordinate]␣
↪[eastBoundingCoordinate] [
westBoundingCoordinate]}};␣
↪northBoundingCoordinate =
 northBoundingCoordinate/text();
southBoundingCoordinate =␣
↪southBoundingCoordinate/
text(); eastBoundingCoordinate =
eastBoundingCoordinate/text();
westBoundingCoordinate = westBoundingCoordinate/
text()
```

Processor: CommonRootSolrField

Configuration: *eml.geohash2*

Notes: This bean uses a template populated from additional sources. See configuration for more details.

Converter: GeohashConverter

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Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.geohash_3	False		`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates`
			`->{{[northBoundingCoordinate] [`
			`southBoundingCoordinate]␣`
			`↪[eastBoundingCoordinate] [`
			`westBoundingCoordinate]}};␣`
			`↪northBoundingCoordinate =`
			` northBoundingCoordinate/text();`
			`southBoundingCoordinate =␣`
			`↪southBoundingCoordinate/`
			`text(); eastBoundingCoordinate =`
			`eastBoundingCoordinate/text();`
			`westBoundingCoordinate = westBoundingCoordinate/`
			`text()`
			
			Processor: CommonRootSolrField
			
			Configuration: *eml.geohash3*
			
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			
			Converter: GeohashConverter

Index.geohash_4	False		`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates`
			`->{{[northBoundingCoordinate] [`
			`southBoundingCoordinate]␣`
			`↪[eastBoundingCoordinate] [`
			`westBoundingCoordinate]}};␣`
			`↪northBoundingCoordinate =`
			` northBoundingCoordinate/text();`
			`southBoundingCoordinate =␣`
			`↪southBoundingCoordinate/`
			`text(); eastBoundingCoordinate =`
			`eastBoundingCoordinate/text();`
			`westBoundingCoordinate = westBoundingCoordinate/`
			`text()`
			
			Processor: CommonRootSolrField
			
			Configuration: *eml.geohash4*
			
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			
			Converter: GeohashConverter

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Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source
Index.geohash_5	False		`//dataset/coverage/geographicCoverage/` `↪boundingCoordinates` `->{{[northBoundingCoordinate] [` `southBoundingCoordinate]␣` `↪[eastBoundingCoordinate] [` `westBoundingCoordinate]}};␣` `↪northBoundingCoordinate =` ` northBoundingCoordinate/text();` `southBoundingCoordinate =␣` `↪southBoundingCoordinate/` `text(); eastBoundingCoordinate =` `eastBoundingCoordinate/text();` `westBoundingCoordinate = westBoundingCoordinate/` `text()` Processor: CommonRootSolrField Configuration: *eml.geohash5* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter
Index.geohash_6	False		`//dataset/coverage/geographicCoverage/` `↪boundingCoordinates` `->{{[northBoundingCoordinate] [` `southBoundingCoordinate]␣` `↪[eastBoundingCoordinate] [` `westBoundingCoordinate]}};␣` `↪northBoundingCoordinate =` ` northBoundingCoordinate/text();` `southBoundingCoordinate =␣` `↪southBoundingCoordinate/` `text(); eastBoundingCoordinate =` `eastBoundingCoordinate/text();` `westBoundingCoordinate = westBoundingCoordinate/` `text()` Processor: CommonRootSolrField Configuration: *eml.geohash6* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter

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Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source

Index.geohash_7	False		`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates`
			`->{{[northBoundingCoordinate] [`
			`southBoundingCoordinate]␣`
			`↪[eastBoundingCoordinate] [`
			`westBoundingCoordinate]}};␣`
			`↪northBoundingCoordinate =`
			`northBoundingCoordinate/text();`
			`southBoundingCoordinate =␣`
			`↪southBoundingCoordinate/`
			`text(); eastBoundingCoordinate =`
			`eastBoundingCoordinate/text();`
			`westBoundingCoordinate = westBoundingCoordinate/`
			`text()`
			
			Processor: CommonRootSolrField
			
			Configuration: *eml.geohash7*
			
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			
			Converter: GeohashConverter

Index.geohash_8	False		`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates`
			`->{{[northBoundingCoordinate] [`
			`southBoundingCoordinate]␣`
			`↪[eastBoundingCoordinate] [`
			`westBoundingCoordinate]}};␣`
			`↪northBoundingCoordinate =`
			`northBoundingCoordinate/text();`
			`southBoundingCoordinate =␣`
			`↪southBoundingCoordinate/`
			`text(); eastBoundingCoordinate =`
			`eastBoundingCoordinate/text();`
			`westBoundingCoordinate = westBoundingCoordinate/`
			`text()`
			
			Processor: CommonRootSolrField
			
			Configuration: *eml.geohash8*
			
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			
			Converter: GeohashConverter

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Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.geohash_9	False		`//dataset/coverage/geographicCoverage/`
			`↪boundingCoordinates`
			`->{{[northBoundingCoordinate] [`
			`southBoundingCoordinate]␣`
			`↪[eastBoundingCoordinate] [`
			`westBoundingCoordinate]}};␣`
			`↪northBoundingCoordinate =`
			` northBoundingCoordinate/text();`
			`southBoundingCoordinate =␣`
			`↪southBoundingCoordinate/`
			`text(); eastBoundingCoordinate =`
			`eastBoundingCoordinate/text();`
			`westBoundingCoordinate = westBoundingCoordinate/`
			`text()`
			
			Processor: CommonRootSolrField
			Configuration: *eml.geohash9*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

Index.isService	False	False	`boolean(//software/implementation/distribution/`
			`↪online/url)`
			
			Processor: SolrField
			Configuration: *eml.isService*

Index.serviceTitle	False	False	`//software/title//text()[normalize-space()]` Processor: SolrField Configuration: *eml.serviceTitle*
Index.serviceDescription	False	False	`//software/abstract//text()[normalize-space()]` Processor: SolrField Configuration: *eml.serviceDescription*

Index.serviceEndpoint	True	False	`//software/implementation/distribution/online/`
			`↪url/text()`
			
			Processor: SolrField
			Configuration: *eml.serviceEndpoint*

15.3 Bean Configurations

15.3.1 eml.abstract

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.abstract" class="org.dataone.cn.indexer.parser.MergeSolrField">
        <constructor-arg name="name" value="abstract"/>
        <constructor-arg name="xpath" value="//dataset/abstract/descendant::text()"/>
        <constructor-arg name="delimiter" value=" "/>
        <property name="multivalue" value="false"/>
        <property name="dedupe" value="false"/>
    </bean>
```

15.3.2 eml.keywords

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.keywords" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="keywords"/>
            <constructor-arg name="xpath" value="//dataset/keywordSet/keyword/text()
→"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

15.3.3 eml.title

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.title" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="title"/>
            <constructor-arg name="xpath" value="//dataset/title/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

15.3.4 eml.project

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.project" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="project"/>
            <constructor-arg name="xpath" value="//dataset/project/title/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

15.3.5 eml.funding

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.funding" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="funding"/>
        <constructor-arg name="xpath" value="//dataset/project/funding/
→descendant::text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

15.3.6 eml.funderName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.funderName" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="funderName"/>
        <constructor-arg name="xpath" value="//dataset/project/award/funderName/
→text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

15.3.7 eml.funderIdentifier

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.funderIdentifier" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="funderIdentifier"/>
        <constructor-arg name="xpath" value="//dataset/project/award/
→funderIdentifier/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

15.3.8 eml.awardNumber

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.awardNumber" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="awardNumber"/>
        <constructor-arg name="xpath" value="//dataset/project/award/awardNumber/
→text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

15.3.9 eml.awardTitle

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.awardTitle" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="awardTitle"/>
            <constructor-arg name="xpath" value="//dataset/project/award/title/text()
→"/>
            <property name="multivalue" value="true"/>
    </bean>
```

15.3.10 eml.southBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.southBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="southBoundCoord"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
→geographicCoverage/boundingCoordinates/southBoundingCoordinate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLatitudeConverter"/>
    </bean>
```

15.3.11 eml.northBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.northBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="northBoundCoord"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
→geographicCoverage/boundingCoordinates/northBoundingCoordinate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLatitudeConverter"/>
    </bean>
```

15.3.12 eml.westBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.westBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="westBoundCoord"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
→geographicCoverage/boundingCoordinates/westBoundingCoordinate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

15.3.13 eml.eastBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="eml.eastBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="eastBoundCoord"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
→geographicCoverage/boundingCoordinates/eastBoundingCoordinate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

15.3.14 eml.site

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="eml.site" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="site"/>
            <constructor-arg name="xpath" value="//dataset/coverage/
→geographicCoverage/geographicDescription/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

15.3.15 eml.beginDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="eml.beginDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="beginDate"/>
            <constructor-arg name="xpath" value="//dataset/coverage/temporalCoverage/
→rangeOfDates/beginDate/calendarDate/text() | //dataset/coverage/temporalCoverage/
→singleDateTime/calendarDate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

15.3.16 eml.endDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="eml.endDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="endDate"/>
            <constructor-arg name="xpath" value="//dataset/coverage/temporalCoverage/
→rangeOfDates/endDate/calendarDate/text() | //dataset/coverage/temporalCoverage/
→singleDateTime/calendarDate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

15.3.17 eml.pubDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.pubDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="pubDate"/>
            <constructor-arg name="xpath" value="//dataset/pubDate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

15.3.18 eml.author

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.author" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="eml.authorNameRoot">
                <constructor-arg name="name" value="author"/>
    </bean>
```

15.3.19 eml.authorGivenName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.authorGivenName" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorGivenName"/>
            <constructor-arg name="xpath" value="//dataset/creator[1]/
→individualName[1]/givenName/text()"/>
    </bean>
```

15.3.20 eml.authorSurName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.authorSurName" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorSurName"/>
            <constructor-arg name="xpath" value="//dataset/creator[1]/
→individualName[1]/surName/text()"/>
    </bean>
```

15.3.21 eml.authorGivenNameSort

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.authorGivenNameSort" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorGivenNameSort"/>
            <constructor-arg name="xpath" value="//dataset/creator[1]/
→individualName[1]/givenName/text()"/>
    </bean>
```

15.3.22 eml.authorSurNameSort

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.authorSurNameSort" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="authorSurNameSort"/>
        <constructor-arg name="xpath" value="//dataset/creator[1]/
↪individualName[1]/surName/text()"/>
    </bean>
```

15.3.23 eml.author_lname

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.author_lname" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="authorLastName"/>
        <constructor-arg name="xpath" value="//dataset/creator/individualName/
↪surName/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

15.3.24 eml.investigator

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.investigator" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="investigator"/>
        <constructor-arg name="xpath" value="//dataset/creator/individualName/
↪surName/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

15.3.25 eml.origin

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.origin" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="eml.originRoot">
        <constructor-arg name="name" value="origin"/>
    </bean>
```

15.3.26 eml.contactOrganization

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.contactOrganization" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="contactOrganization"/>
        <constructor-arg name="xpath" value="//dataset/creator/organizationName/
↪text()"/>
```

(continues on next page)

```xml
                <property name="multivalue" value="true"/>
                <property name="dedupe" value="true"/>
        </bean>
```

15.3.27 eml.genus

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.genus" class="org.dataone.cn.indexer.parser.SolrField">
                <constructor-arg name="name" value="genus"/>
                <constructor-arg name="xpath" value="//taxonomicClassification/
→taxonRankValue[../taxonRankName=&quot;Genus&quot; or ../taxonRankName=&quot;genus&
→quot;]/text()"/>
                <property name="multivalue" value="true"/>
                <property name="dedupe" value="true"/>
        </bean>
```

15.3.28 eml.species

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.species" class="org.dataone.cn.indexer.parser.SolrField">
                <constructor-arg name="name" value="species"/>
                <constructor-arg name="xpath" value="//taxonomicClassification/
→taxonRankValue[../taxonRankName=&quot;Species&quot; or ../taxonRankName=&quot;
→species&quot;]/text()"/>
                <property name="multivalue" value="true"/>
                <property name="dedupe" value="true"/>
        </bean>
```

15.3.29 eml.kingdom

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.kingdom" class="org.dataone.cn.indexer.parser.SolrField">
                <constructor-arg name="name" value="kingdom"/>
                <constructor-arg name="xpath" value="//taxonomicClassification/
→taxonRankValue[../taxonRankName=&quot;Kingdom&quot; or ../taxonRankName=&quot;
→kingdom&quot;]/text()"/>
                <property name="multivalue" value="true"/>
                <property name="dedupe" value="true"/>
        </bean>
```

15.3.30 eml.order

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.order" class="org.dataone.cn.indexer.parser.SolrField">
                <constructor-arg name="name" value="order"/>
```

```
        <constructor-arg name="xpath" value="//taxonomicClassification/
↪taxonRankValue[../taxonRankName=&quot;Order&quot; or ../taxonRankName=&quot;order&
↪quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

15.3.31 eml.phylum

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.phylum" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="phylum"/>
            <constructor-arg name="xpath" value="//taxonomicClassification/
↪taxonRankValue[../taxonRankName=&quot;Phylum&quot; or ../taxonRankName=&quot;phylum&
↪quot;]/text() | //taxonomicClassification/taxonRankValue[../taxonRankName=&quot;
↪Division&quot; or ../taxonRankName=&quot;division&quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

15.3.32 eml.family

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.family" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="family"/>
            <constructor-arg name="xpath" value="//taxonomicClassification/
↪taxonRankValue[../taxonRankName=&quot;Family&quot; or ../taxonRankName=&quot;family&
↪quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

15.3.33 eml.class

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.class" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="class"/>
            <constructor-arg name="xpath" value="//taxonomicClassification/
↪taxonRankValue[../taxonRankName=&quot;Class&quot; or ../taxonRankName=&quot;class&
↪quot;]/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

15.3.34 eml.scientificName

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.scientificName" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.scientificNameRoot">
                    <constructor-arg name="name" value="scientificName"/>
        </bean>
```

15.3.35 eml.attributeName

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.attributeName" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeName"/>
            <constructor-arg name="xpath" value="//dataTable/attributeList/attribute/
→attributeName/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
        </bean>
```

15.3.36 eml.attributeLabel

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.attributeLabel" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeLabel"/>
            <constructor-arg name="xpath" value="//dataTable/attributeList/attribute/
→attributeLabel/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
        </bean>
```

15.3.37 eml.attributeDescription

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.attributeDescription" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeDescription"/>
            <constructor-arg name="xpath" value="//dataTable/attributeList/attribute/
→attributeDefinition/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
        </bean>
```

15.3.38 eml.attributeUnit

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.attributeUnit" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeUnit"/>
            <constructor-arg name="xpath" value="//dataTable//standardUnit/text() | /
→/dataTable//customUnit/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
    </bean>
```

15.3.39 eml.attributeText

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.attributeText" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.attributeTextRoot">
                <constructor-arg name="name" value="attribute"/>
    </bean>
```

15.3.40 eml.fileID

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.fileID" class="org.dataone.cn.indexer.parser.ResolveSolrField">
            <constructor-arg name="name" value="fileID"/>
    </bean>
```

15.3.41 eml.fullText

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.fullText" class="org.dataone.cn.indexer.parser.AggregateSolrField">
            <property name="name" value="text"/>
            <property name="solrFields">
                    <list>
                    <ref bean="eml.text"/>
                    <ref bean="eml.attributeName.noDupe"/>
                    <ref bean="eml.attributeLabel.noDupe"/>
                    <ref bean="eml.attributeDescription.noDupe"/>
                    <ref bean="eml.attributeUnit.noDupe"/>
            </list>
            </property>
    </bean>
```

15.3.42 eml.geohash1

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash1" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_1"/>
            <property name="converter" ref="geohashConverter_1"/>
    </bean>
```

15.3.43 eml.geohash2

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash2" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_2"/>
            <property name="converter" ref="geohashConverter_2"/>
    </bean>
```

15.3.44 eml.geohash3

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash3" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_3"/>
            <property name="converter" ref="geohashConverter_3"/>
    </bean>
```

15.3.45 eml.geohash4

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash4" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_4"/>
            <property name="converter" ref="geohashConverter_4"/>
    </bean>
```

15.3.46 eml.geohash5

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.geohash5" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_5"/>
            <property name="converter" ref="geohashConverter_5"/>
    </bean>
```

15.3.47 eml.geohash6

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.geohash6" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_6"/>
            <property name="converter" ref="geohashConverter_6"/>
    </bean>
```

15.3.48 eml.geohash7

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.geohash7" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_7"/>
            <property name="converter" ref="geohashConverter_7"/>
    </bean>
```

15.3.49 eml.geohash8

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.geohash8" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_8"/>
            <property name="converter" ref="geohashConverter_8"/>
    </bean>
```

15.3.50 eml.geohash9

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.geohash9" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="eml.geohashRoot">
            <constructor-arg name="name" value="geohash_9"/>
            <property name="converter" ref="geohashConverter_9"/>
    </bean>
```

15.3.51 eml.isService

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="eml.isService" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="isService"/>
            <constructor-arg name="xpath" value="boolean(//software/implementation/
↪distribution/online/url)"/>
    </bean>
```

15.3.52 eml.serviceTitle

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.serviceTitle" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceTitle"/>
            <constructor-arg name="xpath" value="//software/title//text()[normalize-
→space()]"/>
            <property name="combineNodes" value="true"/>
            <property name="combineDelimiter" value=":"/>
    </bean>
```

15.3.53 eml.serviceDescription

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.serviceDescription" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceDescription"/>
            <constructor-arg name="xpath" value="//software/abstract//
→text()[normalize-space()]"/>
            <property name="combineNodes" value="true"/>
            <property name="combineDelimiter" value=":"/>
    </bean>
```

15.3.54 eml.serviceEndpoint

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="eml.serviceEndpoint" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceEndpoint"/>
            <constructor-arg name="xpath" value="//software/implementation/
→distribution/online/url/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

Ecological Markup Language Annotations

Describes parser configuration for: emlAnnotationSubprocessor

16.1 Format IDs Processed

This parser processes the following DataONE format IDs:

- Ecological Metadata Language, version 2.2.0
  formatId: `https://eml.ecoinformatics.org/eml-2.2.0`

A full list of DataONE format IDs can be found at https://cn.dataone.org/cn/v2/formats/

16.2 Fields

The following fields in the solr index are populated from values retrieved from this type of metadata document. Note that these are in addition to the information extracted from *System Metadata Parser*.

Solr Field	Multi	Dedupe	Source
Index.sem_annotation	False	False	`//annotation/valueURI/text()` Processor: SolrField Configuration: *emlAnnotationSubprocessor.bean0*

16.3 Bean Configurations

16.3.1 emlAnnotationSubprocessor.bean0

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" xmlns:p="http://www.springframework.org/schema/p"␣
→class="org.dataone.cn.indexer.parser.SolrField" id="emlAnnotationSubprocessor.bean0
→">
                                <constructor-arg name="name" value="sem_
→annotation"/>
                                <constructor-arg name="xpath" value="//
→annotation/valueURI/text()"/>
                                <constructor-arg name="multivalue" value="true"/>
                        </bean>
```

FGDC ESRI Profile

Describes parser configuration for: fgdcEsri80Subprocessor

17.1 Format IDs Processed

This parser processes the following DataONE format IDs:

- ESRI Profile of the Content Standard for Digital Geospatial Metadata, March 2003
  formatId: `http://www.esri.com/metadata/esriprof80.dtd`

A full list of DataONE format IDs can be found at https://cn.dataone.org/cn/v2/formats/

17.2 Fields

The following fields in the solr index are populated from values retrieved from this type of metadata document. Note that these are in addition to the information extracted from *System Metadata Parser*.

Solr Field	Multi	Dedupe	Source

Index.abstract	False	False	`/*[local-name() = 'metadata']/idinfo/descript/`
			`↪abstract/`
			`descendant::text()`
			
			Processor: MergeSolrField
			Configuration: *fgdc.abstract*

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.beginDate	False	False	`/*[local-name() = 'metadata']/idinfo/timeperd/`
			`↪timeinfo/`
			`rngdates/begdate/text()`
			
			Processor: SolrField
			Configuration: *fgdc.beginDate*
			
			Converter: FgdcDateConverter

Index.contactOrganization	True	True	`/*[local-name() = 'metadata']/distinfo/distrib/` `↪cntinfo/` `cntperp/cntorg/text()	/*[local-name() =` `'metadata']/distinfo/distrib/cntinfo/cntorgp/` `↪cntorg/` `text()` Processor: SolrField Configuration: *fgdc.contactOrganization*

Index.eastBoundCoord	False	False	`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding/eastbc/`
			`text()`
			
			Processor: SolrField
			Configuration: *fgdc.eastBoundCoord*
			
			Converter: SolrLongitudeConverter

Index.westBoundCoord	False	False	`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding/westbc/`
			`text()`
			
			Processor: SolrField
			Configuration: *fgdc.westBoundCoord*
			
			Converter: SolrLongitudeConverter

Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source

Index.
northBoundCoord
	False	False	`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding/northbc/`
			`text()`
			
			Processor: SolrField
			
			Configuration: *fgdc.northBoundCoord*
			
			Converter: SolrLongitudeConverter

Index.
southBoundCoord
	False	False	`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding/southbc/`
			`text()`
			
			Processor: SolrField
			
			Configuration: *fgdc.southBoundCoord*
			
			Converter: SolrLongitudeConverter

Index.edition	False	False	`/*[local-name() = 'metadata']/idinfo/citeinfo/`
			`↪edition/text()`
			
			Processor: SolrField
			Configuration: *fgdc.edition*

Index.endDate	False	False	`/*[local-name() = 'metadata']/idinfo/timeperd/`
			`↪timeinfo/`
			`rngdates/enddate/text()`
			
			Processor: SolrField
			Configuration: *fgdc.endDate*
			
			Converter: FgdcDateConverter

Index.gcmdKeyword	True	False	`/*[local-name() = 'metadata']/idinfo/keywords/`
			`↪theme[themekt=`
			`'GCMD Science Keywords']/themekey/text()`
			
			Processor: SolrField
			Configuration: *fgdc.gcmdKeyword*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.keywords	True	True	`/*[local-name() = 'metadata']/idinfo/keywords/` `↪theme/` `themekey/text()	/*[local-name() = 'metadata']/` `idinfo/keywords/place/placekey/text()` Processor: SolrField Configuration: *fgdc.keywords*
Index.geoform	False	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `geoform/text()` Processor: SolrField Configuration: *fgdc.geoform*
Index.genus	True	False	`//taxoncl/taxonrv[../taxonrn="Genus"]/text()` Processor: SolrField Configuration: *fgdc.genus*
Index.kingdom	True	False	`//taxoncl/taxonrv[../taxonrn="Kingdom"]/text()` Processor: SolrField Configuration: *fgdc.kingdom*
Index.order	True	False	`//taxoncl/taxonrv[../taxonrn="Order"]/text()` Processor: SolrField Configuration: *fgdc.order*
Index.phylum	True	False	`//taxoncl/taxonrv[../taxonrn="Phylum"]/text() |␣` `↪//taxoncl/` `taxonrv[../taxonrn="Division"]/text()` Processor: SolrField Configuration: *fgdc.phylum*

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.species	True	False	`//taxoncl/taxonrv[../taxonrn="Species"]/text()` Processor: SolrField Configuration: *fgdc.species*
Index.family	True	False	`//taxoncl/taxonrv[../taxonrn="Family"]/text()` Processor: SolrField Configuration: *fgdc.family*
Index.class	True	False	`//taxoncl/taxonrv[../taxonrn="Class"]/text()` Processor: SolrField Configuration: *fgdc.class*

Index.origin	True	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`origin/text()`
			
			Processor: SolrField
			Configuration: *fgdc.origin*

Index.scientificName	False		`//taxoncl/taxonrv[../taxonrn="Genus"] ->{`
			`↪{[genus] [species]`
			`}}; genus = ../taxonrv/text(); species =␣`
			`↪taxonrv/`
			`text()`
			
			Processor: CommonRootSolrField
			Configuration: *fgdc.scientificName*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.

Index.placeKey	True	False	`/*[local-name() = 'metadata']/idinfo/keywords/`
			`↪place/`
			`placekey/text()`
			
			Processor: SolrField
			Configuration: *fgdc.placeKey*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.pubDate	False	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`pubdate/text()`
			
			Processor: SolrField
			Configuration: *fgdc.pubDate*
			
			Converter: FgdcDateConverter

Index.purpose	False	False	`/*[local-name() = 'metadata']/idinfo/descript/`
			`↪purpose/`
			`descendant::text()`
			
			Processor: MergeSolrField
			Configuration: *fgdc.purpose*

Index.title	False	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`title/text()`
			
			Processor: SolrField
			Configuration: *fgdc.title*

Index.webUrl	True	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`onlink/text()`
			
			Processor: SolrField
			Configuration: *fgdc.web_url*

Index.fileID			Processor: ResolveSolrField Configuration: *fgdc.fileID* Notes: SolrField which configures the resolve url for the document being processed. Converter:
Index.text			Processor: AggregateSolrField Configuration: *fgdc.fullText* Converter:

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.presentationCat	False	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`geoform/text()`
			
			Processor: SolrField
			Configuration: *fgdc.presentationCat*

Index.author	False	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`origin/text()`
			
			Processor: SolrField
			Configuration: *fgdc.author*

Index.authorSurName	False	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`origin[1]/text()`
			
			Processor: SolrField
			Configuration: *fgdc.authorSurName*

Index.authorSurNameSort	False	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`origin[1]/text()`
			
			Processor: SolrField
			Configuration: *fgdc.authorSurNameSort*

Index.investigator	True	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`origin/text()`
			
			Processor: SolrField
			Configuration: *fgdc.investigator*

Index.site	True	False	`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪descgeog/text()`
			
			Processor: SolrField
			Configuration: *fgdc.site*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.attributeName	True	False	`//attr/attrlabl/text()` Processor: SolrField Configuration: *fgdc.attributeName*
Index.attributeLabel	True	False	`//attr/attalias/text()` Processor: SolrField Configuration: *fgdc.attributeLabel*
Index. *attributeDescription*	True	False	`//attr/attrdef/text()` Processor: SolrField Configuration: *fgdc.attributeDescription*
Index.attributeUnit	True	False	`//attr/attrdomv//attrunit/text()	//attr//` `↪attrdomv//edomv/` `text()` Processor: SolrField Configuration: *fgdc.attributeUnit*

Index.attribute	False		`//attr ->{{[attributeName] [attributeLabel] [`
			`attributeDescription] [attributeUnit]}};`
			`attributeName = attrlabl/text(); attributeLabel␣`
			`↪=`
			`attalias/text(); attributeDescription = attrdef/`
			`text(); attributeUnit = attrdomv//attrunit/`
			`↪text() |`
			`.//attrdomv//edomv/text()`
			
			Processor: CommonRootSolrField
			Configuration: *fgdc.attributeText*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.

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Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.geohash_1	False		```/*[local-name() = 'metadata']/idinfo/spdom/↪bounding ->{{[northBoundingCoordinate]␣↪[southBoundingCoordinate] [eastBoundingCoordinate]␣↪[westBoundingCoordinate]}};northBoundingCoordinate = northbc/text();southBoundingCoordinate = southbc/text();eastBoundingCoordinate = eastbc/text();westBoundingCoordinate = westbc/text()``` Processor: CommonRootSolrField Configuration: *fgdc.geohash1* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter
Index.geohash_2	False		```/*[local-name() = 'metadata']/idinfo/spdom/↪bounding ->{{[northBoundingCoordinate]␣↪[southBoundingCoordinate] [eastBoundingCoordinate]␣↪[westBoundingCoordinate]}};northBoundingCoordinate = northbc/text();southBoundingCoordinate = southbc/text();eastBoundingCoordinate = eastbc/text();westBoundingCoordinate = westbc/text()``` Processor: CommonRootSolrField Configuration: *fgdc.geohash2* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
| *Index.geohash_3* | False | | ```
/*[local-name() = 'metadata']/idinfo/spdom/
↪bounding ->{{[
northBoundingCoordinate]␣
↪[southBoundingCoordinate] [
eastBoundingCoordinate]␣
↪[westBoundingCoordinate]}};
northBoundingCoordinate = northbc/text();
southBoundingCoordinate = southbc/text();
eastBoundingCoordinate = eastbc/text();
westBoundingCoordinate = westbc/text()
```<br><br>Processor: CommonRootSolrField<br>Configuration: *fgdc.geohash3*<br>Notes: This bean uses a template populated from additional sources. See configuration for more details.<br>Converter: GeohashConverter |
| *Index.geohash_4* | False | | ```
/*[local-name() = 'metadata']/idinfo/spdom/
↪bounding ->{{[
northBoundingCoordinate]␣
↪[southBoundingCoordinate] [
eastBoundingCoordinate]␣
↪[westBoundingCoordinate]}};
northBoundingCoordinate = northbc/text();
southBoundingCoordinate = southbc/text();
eastBoundingCoordinate = eastbc/text();
westBoundingCoordinate = westbc/text()
```<br><br>Processor: CommonRootSolrField<br>Configuration: *fgdc.geohash4*<br>Notes: This bean uses a template populated from additional sources. See configuration for more details.<br>Converter: GeohashConverter |

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.geohash_5	False		```/*[local-name() = 'metadata']/idinfo/spdom/``` ```→bounding ->{{[``` ```northBoundingCoordinate]␣``` ```→[southBoundingCoordinate] [``` ```eastBoundingCoordinate]␣``` ```→[westBoundingCoordinate]}};``` ```northBoundingCoordinate = northbc/text();``` ```southBoundingCoordinate = southbc/text();``` ```eastBoundingCoordinate = eastbc/text();``` ```westBoundingCoordinate = westbc/text()``` Processor: CommonRootSolrField Configuration: *fgdc.geohash5* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter
Index.geohash_6	False		```/*[local-name() = 'metadata']/idinfo/spdom/``` ```→bounding ->{{[``` ```northBoundingCoordinate]␣``` ```→[southBoundingCoordinate] [``` ```eastBoundingCoordinate]␣``` ```→[westBoundingCoordinate]}};``` ```northBoundingCoordinate = northbc/text();``` ```southBoundingCoordinate = southbc/text();``` ```eastBoundingCoordinate = eastbc/text();``` ```westBoundingCoordinate = westbc/text()``` Processor: CommonRootSolrField Configuration: *fgdc.geohash6* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter

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Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
| *Index.geohash_7* | False | | ```
/*[local-name() = 'metadata']/idinfo/spdom/
↪bounding ->{{[
northBoundingCoordinate]␣
↪[southBoundingCoordinate] [
eastBoundingCoordinate]␣
↪[westBoundingCoordinate]}};
northBoundingCoordinate = northbc/text();
southBoundingCoordinate = southbc/text();
eastBoundingCoordinate = eastbc/text();
westBoundingCoordinate = westbc/text()
```<br><br>Processor: CommonRootSolrField<br>Configuration: *fgdc.geohash7*<br>Notes: This bean uses a template populated from additional sources. See configuration for more details.<br>Converter: GeohashConverter |
| *Index.geohash_8* | False | | ```
/*[local-name() = 'metadata']/idinfo/spdom/
↪bounding ->{{[
northBoundingCoordinate]␣
↪[southBoundingCoordinate] [
eastBoundingCoordinate]␣
↪[westBoundingCoordinate]}};
northBoundingCoordinate = northbc/text();
southBoundingCoordinate = southbc/text();
eastBoundingCoordinate = eastbc/text();
westBoundingCoordinate = westbc/text()
```<br><br>Processor: CommonRootSolrField<br>Configuration: *fgdc.geohash8*<br>Notes: This bean uses a template populated from additional sources. See configuration for more details.<br>Converter: GeohashConverter |

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Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source

Index.geohash_9	False		/*[local-name() = 'metadata']/idinfo/spdom/
			↪bounding ->{{[
			northBoundingCoordinate]␣
			↪[southBoundingCoordinate] [
			eastBoundingCoordinate]␣
			↪[westBoundingCoordinate]}};
			northBoundingCoordinate = northbc/text();
			southBoundingCoordinate = southbc/text();
			eastBoundingCoordinate = eastbc/text();
			westBoundingCoordinate = westbc/text()
			
			Processor: CommonRootSolrField
			Configuration: *fgdc.geohash9*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

17.3 Bean Configurations

17.3.1 fgdc.abstract

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.abstract" class="org.dataone.cn.indexer.parser.MergeSolrField">
    <constructor-arg name="name" value="abstract"/>
    <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/idinfo/
↪descript/abstract/descendant::text()"/>
    <constructor-arg name="delimiter" value=" "/>
    <property name="multivalue" value="false"/>
    <property name="dedupe" value="false"/>
</bean>
```

17.3.2 fgdc.beginDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.beginDate" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="beginDate"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/timeperd/timeinfo/rngdates/begdate/text()"/>
        <property name="multivalue" value="false"/>
        <property name="converter" ref="fgdcDateConverter"/>
    </bean>
```

17.3.3 fgdc.contactOrganization

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.contactOrganization" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="contactOrganization"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→distinfo/distrib/cntinfo/cntperp/cntorg/text() | /*[local-name() = 'metadata']/
→distinfo/distrib/cntinfo/cntorgp/cntorg/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

17.3.4 fgdc.eastBoundCoord

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.eastBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="eastBoundCoord"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/spdom/bounding/eastbc/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

17.3.5 fgdc.westBoundCoord

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.westBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="westBoundCoord"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/spdom/bounding/westbc/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

17.3.6 fgdc.northBoundCoord

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.northBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="northBoundCoord"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/spdom/bounding/northbc/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

17.3.7 fgdc.southBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.southBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="southBoundCoord"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/spdom/bounding/southbc/text()"/>
        <property name="multivalue" value="false"/>
        <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

17.3.8 fgdc.edition

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.edition" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="edition"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citeinfo/edition/text()"/>
        <property name="multivalue" value="false"/>
    </bean>
```

17.3.9 fgdc.endDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.endDate" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="endDate"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/timeperd/timeinfo/rngdates/enddate/text()"/>
        <property name="multivalue" value="false"/>
        <property name="converter" ref="fgdcDateConverter"/>
    </bean>
```

17.3.10 fgdc.gcmdKeyword

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.gcmdKeyword" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="gcmdKeyword"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/keywords/theme[themekt='GCMD Science Keywords']/themekey/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

17.3.11 fgdc.keywords

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.keywords" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="keywords"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/keywords/theme/themekey/text() | /*[local-name() = 'metadata']/idinfo/
→keywords/place/placekey/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
            <property name="disallowedValues">
                    <list>
                            <value>none</value>
                    </list>
            </property>
    </bean>
```

17.3.12 fgdc.geoform

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geoform" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="geoform"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/geoform/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

17.3.13 fgdc.genus

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.genus" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="genus"/>
            <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Genus&quot;]/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

17.3.14 fgdc.kingdom

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.kingdom" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="kingdom"/>
            <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Kingdom&quot;]/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

17.3.15 fgdc.order

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.order" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="order"/>
        <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Order&quot;]/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

17.3.16 fgdc.phylum

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.phylum" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="phylum"/>
        <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Phylum&quot;]/text() | //taxoncl/taxonrv[../taxonrn=&quot;Division&quot;]/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

17.3.17 fgdc.species

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.species" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="species"/>
        <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Species&quot;]/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

17.3.18 fgdc.family

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.family" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="family"/>
        <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Family&quot;]/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

17.3.19 fgdc.class

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.class" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="class"/>
            <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Class&quot;]/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

17.3.20 fgdc.origin

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.origin" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="origin"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/origin/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

17.3.21 fgdc.scientificName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.scientificName" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="fgdc.scientificNameRoot">
                    <constructor-arg name="name" value="scientificName"/>
    </bean>
```

17.3.22 fgdc.placeKey

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.placeKey" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="placeKey"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/keywords/place/placekey/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

17.3.23 fgdc.pubDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.pubDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="pubDate"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/pubdate/text()"/>
            <property name="multivalue" value="false"/>
```

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```
            <property name="converter" ref="fgdcDateConverter"/>
    </bean>
```

17.3.24 fgdc.purpose

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.purpose" class="org.dataone.cn.indexer.parser.MergeSolrField">
        <constructor-arg name="name" value="purpose"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/idinfo/
↪descript/purpose/descendant::text()"/>
        <constructor-arg name="delimiter" value=" "/>
        <property name="multivalue" value="false"/>
        <property name="dedupe" value="false"/>
    </bean>
```

17.3.25 fgdc.title

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.title" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="title"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/citation/citeinfo/title/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

17.3.26 fgdc.web_url

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.web_url" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="webUrl"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/citation/citeinfo/onlink/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

17.3.27 fgdc.fileID

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.fileID" class="org.dataone.cn.indexer.parser.ResolveSolrField">
            <constructor-arg name="name" value="fileID"/>
    </bean>
```

17.3.28 fgdc.fullText

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.fullText" class="org.dataone.cn.indexer.parser.AggregateSolrField">
            <property name="name" value="text"/>
            <property name="solrFields">
                  <list>
                  <ref bean="fgdc.text"/>
            </list>
            </property>
    </bean>
```

17.3.29 fgdc.presentationCat

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.presentationCat" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="presentationCat"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/geoform/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

17.3.30 fgdc.author

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.author" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="author"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/origin/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

17.3.31 fgdc.authorSurName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.authorSurName" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorSurName"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/origin[1]/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

17.3.32 fgdc.authorSurNameSort

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.authorSurNameSort" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorSurNameSort"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/origin[1]/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

17.3.33 fgdc.investigator

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.investigator" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="investigator"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/origin/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

17.3.34 fgdc.site

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.site" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="site"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/spdom/descgeog/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

17.3.35 fgdc.attributeName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.attributeName" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeName"/>
            <constructor-arg name="xpath" value="//attr/attrlabl/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
    </bean>
```

17.3.36 fgdc.attributeLabel

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.attributeLabel" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeLabel"/>
            <constructor-arg name="xpath" value="//attr/attalias/text()"/>
```

(continues on next page)

```
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
        </bean>
```

17.3.37 fgdc.attributeDescription

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.attributeDescription" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeDescription"/>
            <constructor-arg name="xpath" value="//attr/attrdef/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
        </bean>
```

17.3.38 fgdc.attributeUnit

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.attributeUnit" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeUnit"/>
            <constructor-arg name="xpath" value="//attr/attrdomv//attrunit/text() | /
↪/attr//attrdomv//edomv/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
        </bean>
```

17.3.39 fgdc.attributeText

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.attributeText" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="fgdc.attributeTextRoot">
                <constructor-arg name="name" value="attribute"/>
        </bean>
```

17.3.40 fgdc.geohash1

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.geohash1" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_1"/>
            <property name="converter" ref="geohashConverter_1"/>
        </bean>
```

17.3.41 fgdc.geohash2

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash2" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_2"/>
            <property name="converter" ref="geohashConverter_2"/>
    </bean>
```

17.3.42 fgdc.geohash3

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash3" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_3"/>
            <property name="converter" ref="geohashConverter_3"/>
    </bean>
```

17.3.43 fgdc.geohash4

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash4" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_4"/>
            <property name="converter" ref="geohashConverter_4"/>
    </bean>
```

17.3.44 fgdc.geohash5

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash5" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_5"/>
            <property name="converter" ref="geohashConverter_5"/>
    </bean>
```

17.3.45 fgdc.geohash6

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash6" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_6"/>
            <property name="converter" ref="geohashConverter_6"/>
    </bean>
```

17.3.46 fgdc.geohash7

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="fgdc.geohash7" class="org.dataone.cn.indexer.parser.CommonRootSolrField"
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_7"/>
            <property name="converter" ref="geohashConverter_7"/>
    </bean>
```

17.3.47 fgdc.geohash8

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="fgdc.geohash8" class="org.dataone.cn.indexer.parser.CommonRootSolrField"
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_8"/>
            <property name="converter" ref="geohashConverter_8"/>
    </bean>
```

17.3.48 fgdc.geohash9

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="fgdc.geohash9" class="org.dataone.cn.indexer.parser.CommonRootSolrField"
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_9"/>
            <property name="converter" ref="geohashConverter_9"/>
    </bean>
```

FGDC, v001.1-1999

Describes parser configuration for: fgdcstd00111999Subprocessor

18.1 Format IDs Processed

This parser processes the following DataONE format IDs:

- Content Standard for Digital Geospatial Metadata, Biological Data Profile, version 001.1-1999
  formatId: `FGDC-STD-001.1-1999`

A full list of DataONE format IDs can be found at https://cn.dataone.org/cn/v2/formats/

18.2 Fields

The following fields in the solr index are populated from values retrieved from this type of metadata document. Note that these are in addition to the information extracted from *System Metadata Parser*.

Solr Field	Multi	Dedupe	Source
Index.abstract	False	False	`/*[local-name() = 'metadata']/idinfo/descript/` `↪abstract/` `descendant::text()` Processor: MergeSolrField Configuration: *fgdc.abstract*

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.beginDate	False	False	`/*[local-name() = 'metadata']/idinfo/timeperd/`
			`↪timeinfo/`
			`rngdates/begdate/text()`
			
			Processor: SolrField
			Configuration: *fgdc.beginDate*
			
			Converter: FgdcDateConverter

Index.contactOrganization	True	True	`/*[local-name() = 'metadata']/distinfo/distrib/` `↪cntinfo/` `cntperp/cntorg/text()	/*[local-name() =` `'metadata']/distinfo/distrib/cntinfo/cntorgp/` `↪cntorg/` `text()` Processor: SolrField Configuration: *fgdc.contactOrganization*

Index.eastBoundCoord	False	False	`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding/eastbc/`
			`text()`
			
			Processor: SolrField
			Configuration: *fgdc.eastBoundCoord*
			
			Converter: SolrLongitudeConverter

Index.westBoundCoord	False	False	`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding/westbc/`
			`text()`
			
			Processor: SolrField
			Configuration: *fgdc.westBoundCoord*
			
			Converter: SolrLongitudeConverter

Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source
Index. northBoundCoord	False	False	`/*[local-name() = 'metadata']/idinfo/spdom/` `↪bounding/northbc/` `text()` Processor: SolrField Configuration: *fgdc.northBoundCoord* Converter: SolrLongitudeConverter
Index. southBoundCoord	False	False	`/*[local-name() = 'metadata']/idinfo/spdom/` `↪bounding/southbc/` `text()` Processor: SolrField Configuration: *fgdc.southBoundCoord* Converter: SolrLongitudeConverter
Index.edition	False	False	`/*[local-name() = 'metadata']/idinfo/citeinfo/` `↪edition/text()` Processor: SolrField Configuration: *fgdc.edition*
Index.endDate	False	False	`/*[local-name() = 'metadata']/idinfo/timeperd/` `↪timeinfo/` `rngdates/enddate/text()` Processor: SolrField Configuration: *fgdc.endDate* Converter: FgdcDateConverter
Index.gcmdKeyword	True	False	`/*[local-name() = 'metadata']/idinfo/keywords/` `↪theme[themekt=` `'GCMD Science Keywords']/themekey/text()` Processor: SolrField Configuration: *fgdc.gcmdKeyword*

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Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.keywords	True	True	`/*[local-name() = 'metadata']/idinfo/keywords/` `↪theme/` `themekey/text()	/*[local-name() = 'metadata']/` `idinfo/keywords/place/placekey/text()` Processor: SolrField Configuration: *fgdc.keywords*

Index.geoform	False	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`geoform/text()`
			
			Processor: SolrField
			Configuration: *fgdc.geoform*

Index.genus	True	False	`//taxoncl/taxonrv[../taxonrn="Genus"]/text()` Processor: SolrField Configuration: *fgdc.genus*
Index.kingdom	True	False	`//taxoncl/taxonrv[../taxonrn="Kingdom"]/text()` Processor: SolrField Configuration: *fgdc.kingdom*
Index.order	True	False	`//taxoncl/taxonrv[../taxonrn="Order"]/text()` Processor: SolrField Configuration: *fgdc.order*

Index.phylum	True	False	`//taxoncl/taxonrv[../taxonrn="Phylum"]/text() |␣`
			`↪//taxoncl/`
			`taxonrv[../taxonrn="Division"]/text()`
			
			Processor: SolrField
			Configuration: *fgdc.phylum*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source
Index.species	True	False	`//taxoncl/taxonrv[../taxonrn="Species"]/text()` Processor: SolrField Configuration: *fgdc.species*
Index.family	True	False	`//taxoncl/taxonrv[../taxonrn="Family"]/text()` Processor: SolrField Configuration: *fgdc.family*
Index.class	True	False	`//taxoncl/taxonrv[../taxonrn="Class"]/text()` Processor: SolrField Configuration: *fgdc.class*

Index.scientificName	False		`//taxoncl/taxonrv[../taxonrn="Genus"] ->{`
			`↪{[genus] [species]`
			`}}; genus = ../taxonrv/text(); species =`
			`↪taxonrv/`
			`text()`
			
			Processor: CommonRootSolrField
			Configuration: *fgdc.scientificName*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.

Index.origin	True	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`origin/text()`
			
			Processor: SolrField
			Configuration: *fgdc.origin*

Index.placeKey	True	False	`/*[local-name() = 'metadata']/idinfo/keywords/`
			`↪place/`
			`placekey/text()`
			
			Processor: SolrField
			Configuration: *fgdc.placeKey*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.pubDate	False	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`pubdate/text()`
			
			Processor: SolrField
			Configuration: *fgdc.pubDate*
			
			Converter: FgdcDateConverter

Index.purpose	False	False	`/*[local-name() = 'metadata']/idinfo/descript/`
			`↪purpose/`
			`descendant::text()`
			
			Processor: MergeSolrField
			Configuration: *fgdc.purpose*

Index.title	False	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`title/text()`
			
			Processor: SolrField
			Configuration: *fgdc.title*

Index.webUrl	True	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`onlink/text()`
			
			Processor: SolrField
			Configuration: *fgdc.web_url*

Index.fileID			Processor: ResolveSolrField Configuration: *fgdc.fileID* Notes: SolrField which configures the resolve url for the document being processed. Converter:
Index.text			Processor: AggregateSolrField Configuration: *fgdc.fullText* Converter:

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.presentationCat	False	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`geoform/text()`
			
			Processor: SolrField
			Configuration: *fgdc.presentationCat*

Index.author	False	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`origin/text()`
			
			Processor: SolrField
			Configuration: *fgdc.author*

Index.authorSurName	False	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`origin[1]/text()`
			
			Processor: SolrField
			Configuration: *fgdc.authorSurName*

Index.authorSurNameSort	False	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`origin[1]/text()`
			
			Processor: SolrField
			Configuration: *fgdc.authorSurNameSort*

Index.investigator	True	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`origin/text()`
			
			Processor: SolrField
			Configuration: *fgdc.investigator*

Index.site	True	False	`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪descgeog/text()`
			
			Processor: SolrField
			Configuration: *fgdc.site*

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.attributeName	True	False	`//attr/attrlabl/text()` Processor: SolrField Configuration: *fgdc.attributeName*
Index.attributeLabel	True	False	`//attr/attalias/text()` Processor: SolrField Configuration: *fgdc.attributeLabel*
Index.attributeDescription	True	False	`//attr/attrdef/text()` Processor: SolrField Configuration: *fgdc.attributeDescription*

Index.attributeUnit	True	False	`//attr/attrdomv//attrunit/text() | //attr//`
			`↪attrdomv//edomv/`
			`text()`
			
			Processor: SolrField
			Configuration: *fgdc.attributeUnit*

Index.attribute	False		`//attr ->{{[attributeName] [attributeLabel] [`
			`attributeDescription] [attributeUnit]}};`
			`attributeName = attrlabl/text(); attributeLabel␣`
			`↪=`
			`attalias/text(); attributeDescription = attrdef/`
			`text(); attributeUnit = attrdomv//attrunit/`
			`↪text() |`
			`.//attrdomv//edomv/text()`
			
			Processor: CommonRootSolrField
			Configuration: *fgdc.attributeText*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.

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Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.geohash_1	False		<pre>/*[local-name() = 'metadata']/idinfo/spdom/
			→bounding ->{{[
			northBoundingCoordinate]␣
			→[southBoundingCoordinate] [
			eastBoundingCoordinate]␣
			→[westBoundingCoordinate]}};
			northBoundingCoordinate = northbc/text();
			southBoundingCoordinate = southbc/text();
			eastBoundingCoordinate = eastbc/text();
			westBoundingCoordinate = westbc/text()</pre>
			Processor: CommonRootSolrField
			Configuration: *fgdc.geohash1*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

Index.geohash_2	False		<pre>/*[local-name() = 'metadata']/idinfo/spdom/
			→bounding ->{{[
			northBoundingCoordinate]␣
			→[southBoundingCoordinate] [
			eastBoundingCoordinate]␣
			→[westBoundingCoordinate]}};
			northBoundingCoordinate = northbc/text();
			southBoundingCoordinate = southbc/text();
			eastBoundingCoordinate = eastbc/text();
			westBoundingCoordinate = westbc/text()</pre>
			Processor: CommonRootSolrField
			Configuration: *fgdc.geohash2*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
| *Index.geohash_3* | False | | ```
/*[local-name() = 'metadata']/idinfo/spdom/
↪bounding ->{{[
northBoundingCoordinate]␣
↪[southBoundingCoordinate] [
eastBoundingCoordinate]␣
↪[westBoundingCoordinate]}};
northBoundingCoordinate = northbc/text();
southBoundingCoordinate = southbc/text();
eastBoundingCoordinate = eastbc/text();
westBoundingCoordinate = westbc/text()
```<br><br>Processor: CommonRootSolrField<br>Configuration: *fgdc.geohash3*<br>Notes: This bean uses a template populated from additional sources. See configuration for more details.<br>Converter: GeohashConverter |
| *Index.geohash_4* | False | | ```
/*[local-name() = 'metadata']/idinfo/spdom/
↪bounding ->{{[
northBoundingCoordinate]␣
↪[southBoundingCoordinate] [
eastBoundingCoordinate]␣
↪[westBoundingCoordinate]}};
northBoundingCoordinate = northbc/text();
southBoundingCoordinate = southbc/text();
eastBoundingCoordinate = eastbc/text();
westBoundingCoordinate = westbc/text()
```<br><br>Processor: CommonRootSolrField<br>Configuration: *fgdc.geohash4*<br>Notes: This bean uses a template populated from additional sources. See configuration for more details.<br>Converter: GeohashConverter |

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
| *Index.geohash_5* | False | | ```
/*[local-name() = 'metadata']/idinfo/spdom/
↪bounding ->{{[
northBoundingCoordinate]␣
↪[southBoundingCoordinate] [
eastBoundingCoordinate]␣
↪[westBoundingCoordinate]}};
northBoundingCoordinate = northbc/text();
southBoundingCoordinate = southbc/text();
eastBoundingCoordinate = eastbc/text();
westBoundingCoordinate = westbc/text()
```<br><br>Processor: CommonRootSolrField<br><br>Configuration: *fgdc.geohash5*<br><br>Notes: This bean uses a template populated from additional sources. See configuration for more details.<br><br>Converter: GeohashConverter |
| *Index.geohash_6* | False | | ```
/*[local-name() = 'metadata']/idinfo/spdom/
↪bounding ->{{[
northBoundingCoordinate]␣
↪[southBoundingCoordinate] [
eastBoundingCoordinate]␣
↪[westBoundingCoordinate]}};
northBoundingCoordinate = northbc/text();
southBoundingCoordinate = southbc/text();
eastBoundingCoordinate = eastbc/text();
westBoundingCoordinate = westbc/text()
```<br><br>Processor: CommonRootSolrField<br><br>Configuration: *fgdc.geohash6*<br><br>Notes: This bean uses a template populated from additional sources. See configuration for more details.<br><br>Converter: GeohashConverter |

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.geohash_7	False		`/*[local-name() = 'metadata']/idinfo/spdom/`
			`→bounding ->{{[`
			`northBoundingCoordinate]␣`
			`→[southBoundingCoordinate] [`
			`eastBoundingCoordinate]␣`
			`→[westBoundingCoordinate]}};`
			`northBoundingCoordinate = northbc/text();`
			`southBoundingCoordinate = southbc/text();`
			`eastBoundingCoordinate = eastbc/text();`
			`westBoundingCoordinate = westbc/text()`
			
			Processor: CommonRootSolrField
			
			Configuration: *fgdc.geohash7*
			
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			
			Converter: GeohashConverter

Index.geohash_8	False		`/*[local-name() = 'metadata']/idinfo/spdom/`
			`→bounding ->{{[`
			`northBoundingCoordinate]␣`
			`→[southBoundingCoordinate] [`
			`eastBoundingCoordinate]␣`
			`→[westBoundingCoordinate]}};`
			`northBoundingCoordinate = northbc/text();`
			`southBoundingCoordinate = southbc/text();`
			`eastBoundingCoordinate = eastbc/text();`
			`westBoundingCoordinate = westbc/text()`
			
			Processor: CommonRootSolrField
			
			Configuration: *fgdc.geohash8*
			
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			
			Converter: GeohashConverter

Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source

Index.geohash_9	False		`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding ->{{[`
			`northBoundingCoordinate]␣`
			`↪[southBoundingCoordinate] [`
			`eastBoundingCoordinate]␣`
			`↪[westBoundingCoordinate]}};`
			`northBoundingCoordinate = northbc/text();`
			`southBoundingCoordinate = southbc/text();`
			`eastBoundingCoordinate = eastbc/text();`
			`westBoundingCoordinate = westbc/text()`
			
			Processor: CommonRootSolrField
			Configuration: *fgdc.geohash9*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

18.3 Bean Configurations

18.3.1 fgdc.abstract

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.abstract" class="org.dataone.cn.indexer.parser.MergeSolrField">
     <constructor-arg name="name" value="abstract"/>
     <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/idinfo/
↪descript/abstract/descendant::text()"/>
     <constructor-arg name="delimiter" value=" "/>
     <property name="multivalue" value="false"/>
     <property name="dedupe" value="false"/>
   </bean>
```

18.3.2 fgdc.beginDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.beginDate" class="org.dataone.cn.indexer.parser.SolrField">
          <constructor-arg name="name" value="beginDate"/>
          <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/timeperd/timeinfo/rngdates/begdate/text()"/>
          <property name="multivalue" value="false"/>
          <property name="converter" ref="fgdcDateConverter"/>
     </bean>
```

18.3.3 fgdc.contactOrganization

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.contactOrganization" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="contactOrganization"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→distinfo/distrib/cntinfo/cntperp/cntorg/text() | /*[local-name() = 'metadata']/
→distinfo/distrib/cntinfo/cntorgp/cntorg/text()"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="true"/>
    </bean>
```

18.3.4 fgdc.eastBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.eastBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="eastBoundCoord"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/spdom/bounding/eastbc/text()"/>
        <property name="multivalue" value="false"/>
        <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

18.3.5 fgdc.westBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.westBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="westBoundCoord"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/spdom/bounding/westbc/text()"/>
        <property name="multivalue" value="false"/>
        <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

18.3.6 fgdc.northBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.northBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="northBoundCoord"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/spdom/bounding/northbc/text()"/>
        <property name="multivalue" value="false"/>
        <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

18.3.7 fgdc.southBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.southBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="southBoundCoord"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/spdom/bounding/southbc/text()"/>
        <property name="multivalue" value="false"/>
        <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

18.3.8 fgdc.edition

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.edition" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="edition"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citeinfo/edition/text()"/>
        <property name="multivalue" value="false"/>
    </bean>
```

18.3.9 fgdc.endDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.endDate" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="endDate"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/timeperd/timeinfo/rngdates/enddate/text()"/>
        <property name="multivalue" value="false"/>
        <property name="converter" ref="fgdcDateConverter"/>
    </bean>
```

18.3.10 fgdc.gcmdKeyword

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.gcmdKeyword" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="gcmdKeyword"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/keywords/theme[themekt='GCMD Science Keywords']/themekey/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

18.3.11 fgdc.keywords

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="fgdc.keywords" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="keywords"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/keywords/theme/themekey/text() | /*[local-name() = 'metadata']/idinfo/
→keywords/place/placekey/text()"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="true"/>
        <property name="disallowedValues">
                <list>
                        <value>none</value>
                </list>
        </property>
    </bean>
```

18.3.12 fgdc.geoform

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="fgdc.geoform" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="geoform"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/geoform/text()"/>
        <property name="multivalue" value="false"/>
    </bean>
```

18.3.13 fgdc.genus

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="fgdc.genus" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="genus"/>
        <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Genus&quot;]/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

18.3.14 fgdc.kingdom

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="fgdc.kingdom" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="kingdom"/>
        <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Kingdom&quot;]/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

18.3.15 fgdc.order

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.order" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="order"/>
            <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Order&quot;]/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

18.3.16 fgdc.phylum

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.phylum" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="phylum"/>
            <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Phylum&quot;]/text() | //taxoncl/taxonrv[../taxonrn=&quot;Division&quot;]/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

18.3.17 fgdc.species

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.species" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="species"/>
            <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Species&quot;]/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

18.3.18 fgdc.family

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.family" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="family"/>
            <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Family&quot;]/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

18.3.19 fgdc.class

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.class" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="class"/>
            <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Class&quot;]/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

18.3.20 fgdc.scientificName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.scientificName" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="fgdc.scientificNameRoot">
                <constructor-arg name="name" value="scientificName"/>
    </bean>
```

18.3.21 fgdc.origin

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.origin" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="origin"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/origin/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

18.3.22 fgdc.placeKey

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.placeKey" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="placeKey"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/keywords/place/placekey/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

18.3.23 fgdc.pubDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.pubDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="pubDate"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/pubdate/text()"/>
            <property name="multivalue" value="false"/>
```

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```xml
        <property name="converter" ref="fgdcDateConverter"/>
    </bean>
```

18.3.24 fgdc.purpose

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="fgdc.purpose" class="org.dataone.cn.indexer.parser.MergeSolrField">
    <constructor-arg name="name" value="purpose"/>
    <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/idinfo/
→descript/purpose/descendant::text()"/>
    <constructor-arg name="delimiter" value=" "/>
    <property name="multivalue" value="false"/>
    <property name="dedupe" value="false"/>
    </bean>
```

18.3.25 fgdc.title

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="fgdc.title" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="title"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/title/text()"/>
        <property name="multivalue" value="false"/>
    </bean>
```

18.3.26 fgdc.web_url

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="fgdc.web_url" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="webUrl"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/onlink/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

18.3.27 fgdc.fileID

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="fgdc.fileID" class="org.dataone.cn.indexer.parser.ResolveSolrField">
        <constructor-arg name="name" value="fileID"/>
    </bean>
```

18.3.28 fgdc.fullText

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.fullText" class="org.dataone.cn.indexer.parser.AggregateSolrField">
            <property name="name" value="text"/>
            <property name="solrFields">
                    <list>
                    <ref bean="fgdc.text"/>
            </list>
            </property>
    </bean>
```

18.3.29 fgdc.presentationCat

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.presentationCat" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="presentationCat"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/geoform/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

18.3.30 fgdc.author

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.author" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="author"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/origin/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

18.3.31 fgdc.authorSurName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.authorSurName" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorSurName"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/origin[1]/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

18.3.32 fgdc.authorSurNameSort

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.authorSurNameSort" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorSurNameSort"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/origin[1]/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

18.3.33 fgdc.investigator

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.investigator" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="investigator"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/origin/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

18.3.34 fgdc.site

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.site" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="site"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/spdom/descgeog/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

18.3.35 fgdc.attributeName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.attributeName" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeName"/>
            <constructor-arg name="xpath" value="//attr/attrlabl/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
    </bean>
```

18.3.36 fgdc.attributeLabel

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.attributeLabel" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeLabel"/>
            <constructor-arg name="xpath" value="//attr/attalias/text()"/>
```

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```
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="false"/>
    </bean>
```

18.3.37 fgdc.attributeDescription

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.attributeDescription" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="attributeDescription"/>
        <constructor-arg name="xpath" value="//attr/attrdef/text()"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="false"/>
    </bean>
```

18.3.38 fgdc.attributeUnit

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.attributeUnit" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="attributeUnit"/>
        <constructor-arg name="xpath" value="//attr/attrdomv//attrunit/text() | /
↪/attr//attrdomv//edomv/text()"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="false"/>
    </bean>
```

18.3.39 fgdc.attributeText

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.attributeText" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="fgdc.attributeTextRoot">
                <constructor-arg name="name" value="attribute"/>
    </bean>
```

18.3.40 fgdc.geohash1

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.geohash1" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="false" p:root-ref="fgdc.geohashRoot">
        <constructor-arg name="name" value="geohash_1"/>
        <property name="converter" ref="geohashConverter_1"/>
    </bean>
```

18.3.41 fgdc.geohash2

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash2" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_2"/>
            <property name="converter" ref="geohashConverter_2"/>
    </bean>
```

18.3.42 fgdc.geohash3

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash3" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_3"/>
            <property name="converter" ref="geohashConverter_3"/>
    </bean>
```

18.3.43 fgdc.geohash4

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash4" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_4"/>
            <property name="converter" ref="geohashConverter_4"/>
    </bean>
```

18.3.44 fgdc.geohash5

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash5" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_5"/>
            <property name="converter" ref="geohashConverter_5"/>
    </bean>
```

18.3.45 fgdc.geohash6

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash6" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_6"/>
            <property name="converter" ref="geohashConverter_6"/>
    </bean>
```

18.3.46 fgdc.geohash7

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash7" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_7"/>
            <property name="converter" ref="geohashConverter_7"/>
    </bean>
```

18.3.47 fgdc.geohash8

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash8" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_8"/>
            <property name="converter" ref="geohashConverter_8"/>
    </bean>
```

18.3.48 fgdc.geohash9

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash9" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_9"/>
            <property name="converter" ref="geohashConverter_9"/>
    </bean>
```

FGDC, v001-1998

Describes parser configuration for: fgdcstd0011998Subprocessor

19.1 Format IDs Processed

This parser processes the following DataONE format IDs:

- Content Standard for Digital Geospatial Metadata, version 001-1998
  formatId: `FGDC-STD-001-1998`

A full list of DataONE format IDs can be found at https://cn.dataone.org/cn/v2/formats/

19.2 Fields

The following fields in the solr index are populated from values retrieved from this type of metadata document. Note that these are in addition to the information extracted from *System Metadata Parser*.

Solr Field	Multi	Dedupe	Source
Index.abstract	False	False	`/*[local-name() = 'metadata']/idinfo/descript/` `↪abstract/` `descendant::text()` Processor: MergeSolrField Configuration: *fgdc.abstract*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source

Index.beginDate	False	False	`/*[local-name() = 'metadata']/idinfo/timeperd/`
			`↪timeinfo/`
			`rngdates/begdate/text()`
			
			Processor: SolrField
			Configuration: *fgdc.beginDate*
			
			Converter: FgdcDateConverter

Index.contactOrganization	True	True	`/*[local-name() = 'metadata']/distinfo/distrib/` `↪cntinfo/` `cntperp/cntorg/text()	/*[local-name() =` `'metadata']/distinfo/distrib/cntinfo/cntorgp/` `↪cntorg/` `text()` Processor: SolrField Configuration: *fgdc.contactOrganization*

Index.eastBoundCoord	False	False	`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding/eastbc/`
			`text()`
			
			Processor: SolrField
			Configuration: *fgdc.eastBoundCoord*
			
			Converter: SolrLongitudeConverter

Index.westBoundCoord	False	False	`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding/westbc/`
			`text()`
			
			Processor: SolrField
			Configuration: *fgdc.westBoundCoord*
			
			Converter: SolrLongitudeConverter

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index. northBoundCoord	False	False	`/*[local-name() = 'metadata']/idinfo/spdom/` `↪bounding/northbc/` `text()` Processor: SolrField Configuration: *fgdc.northBoundCoord* Converter: SolrLongitudeConverter
Index. southBoundCoord	False	False	`/*[local-name() = 'metadata']/idinfo/spdom/` `↪bounding/southbc/` `text()` Processor: SolrField Configuration: *fgdc.southBoundCoord* Converter: SolrLongitudeConverter
Index.edition	False	False	`/*[local-name() = 'metadata']/idinfo/citeinfo/` `↪edition/text()` Processor: SolrField Configuration: *fgdc.edition*
Index.endDate	False	False	`/*[local-name() = 'metadata']/idinfo/timeperd/` `↪timeinfo/` `rngdates/enddate/text()` Processor: SolrField Configuration: *fgdc.endDate* Converter: FgdcDateConverter
Index.gcmdKeyword	True	False	`/*[local-name() = 'metadata']/idinfo/keywords/` `↪theme[themekt=` `'GCMD Science Keywords']/themekey/text()` Processor: SolrField Configuration: *fgdc.gcmdKeyword*

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.keywords	True	True	`/*[local-name() = 'metadata']/idinfo/keywords/` `↪theme/` `themekey/text() | /*[local-name() = 'metadata']/` `idinfo/keywords/place/placekey/text()` Processor: SolrField Configuration: *fgdc.keywords*
Index.geoform	False	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `geoform/text()` Processor: SolrField Configuration: *fgdc.geoform*
Index.genus	True	False	`//taxoncl/taxonrv[../taxonrn="Genus"]/text()` Processor: SolrField Configuration: *fgdc.genus*
Index.kingdom	True	False	`//taxoncl/taxonrv[../taxonrn="Kingdom"]/text()` Processor: SolrField Configuration: *fgdc.kingdom*
Index.order	True	False	`//taxoncl/taxonrv[../taxonrn="Order"]/text()` Processor: SolrField Configuration: *fgdc.order*
Index.phylum	True	False	`//taxoncl/taxonrv[../taxonrn="Phylum"]/text() |␣` `↪//taxoncl/` `taxonrv[../taxonrn="Division"]/text()` Processor: SolrField Configuration: *fgdc.phylum*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.species	True	False	`//taxoncl/taxonrv[../taxonrn="Species"]/text()` Processor: SolrField Configuration: *fgdc.species*
Index.family	True	False	`//taxoncl/taxonrv[../taxonrn="Family"]/text()` Processor: SolrField Configuration: *fgdc.family*
Index.class	True	False	`//taxoncl/taxonrv[../taxonrn="Class"]/text()` Processor: SolrField Configuration: *fgdc.class*

Index.scientificName	False		`//taxoncl/taxonrv[../taxonrn="Genus"] ->{`
			`↪{[genus] [species]`
			`}}; genus = ../taxonrv/text(); species =`
			`↪taxonrv/`
			`text()`
			
			Processor: CommonRootSolrField
			Configuration: *fgdc.scientificName*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.

Index.origin	True	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`origin/text()`
			
			Processor: SolrField
			Configuration: *fgdc.origin*

Index.placeKey	True	False	`/*[local-name() = 'metadata']/idinfo/keywords/`
			`↪place/`
			`placekey/text()`
			
			Processor: SolrField
			Configuration: *fgdc.placeKey*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source

Index.pubDate	False	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`pubdate/text()`
			
			Processor: SolrField
			Configuration: *fgdc.pubDate*
			
			Converter: FgdcDateConverter

Index.purpose	False	False	`/*[local-name() = 'metadata']/idinfo/descript/`
			`↪purpose/`
			`descendant::text()`
			
			Processor: MergeSolrField
			Configuration: *fgdc.purpose*

Index.title	False	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`title/text()`
			
			Processor: SolrField
			Configuration: *fgdc.title*

Index.webUrl	True	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`onlink/text()`
			
			Processor: SolrField
			Configuration: *fgdc.web_url*

Index.fileID			Processor: ResolveSolrField Configuration: *fgdc.fileID* Notes: SolrField which configures the resolve url for the document being processed. Converter:
Index.text			Processor: AggregateSolrField Configuration: *fgdc.fullText* Converter:

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index. presentationCat	False	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `geoform/text()` Processor: SolrField Configuration: *fgdc.presentationCat*
Index.author	False	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `origin/text()` Processor: SolrField Configuration: *fgdc.author*
Index.authorSurName	False	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `origin[1]/text()` Processor: SolrField Configuration: *fgdc.authorSurName*
Index. authorSurNameSort	False	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `origin[1]/text()` Processor: SolrField Configuration: *fgdc.authorSurNameSort*
Index.investigator	True	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `origin/text()` Processor: SolrField Configuration: *fgdc.investigator*
Index.site	True	False	`/*[local-name() = 'metadata']/idinfo/spdom/` `↪descgeog/text()` Processor: SolrField Configuration: *fgdc.site*

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.attributeName	True	False	`//attr/attrlabl/text()` Processor: SolrField Configuration: *fgdc.attributeName*
Index.attributeLabel	True	False	`//attr/attalias/text()` Processor: SolrField Configuration: *fgdc.attributeLabel*
Index. *attributeDescription*	True	False	`//attr/attrdef/text()` Processor: SolrField Configuration: *fgdc.attributeDescription*
Index.attributeUnit	True	False	`//attr/attrdomv//attrunit/text()	//attr//` `↪attrdomv//edomv/` `text()` Processor: SolrField Configuration: *fgdc.attributeUnit*

Index.attribute	False		`//attr ->{{[attributeName] [attributeLabel] [`
			`attributeDescription] [attributeUnit]}};`
			`attributeName = attrlabl/text(); attributeLabel␣`
			`↪=`
			`attalias/text(); attributeDescription = attrdef/`
			`text(); attributeUnit = attrdomv//attrunit/`
			`↪text() |`
			`.//attrdomv//edomv/text()`
			
			Processor: CommonRootSolrField
			Configuration: *fgdc.attributeText*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.geohash_1	False		<pre>/*[local-name() = 'metadata']/idinfo/spdom/
			→bounding ->{{[
			northBoundingCoordinate]␣
			→[southBoundingCoordinate] [
			eastBoundingCoordinate]␣
			→[westBoundingCoordinate]}};
			northBoundingCoordinate = northbc/text();
			southBoundingCoordinate = southbc/text();
			eastBoundingCoordinate = eastbc/text();
			westBoundingCoordinate = westbc/text()</pre>
			
			Processor: CommonRootSolrField
			Configuration: *fgdc.geohash1*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

Index.geohash_2	False		<pre>/*[local-name() = 'metadata']/idinfo/spdom/
			→bounding ->{{[
			northBoundingCoordinate]␣
			→[southBoundingCoordinate] [
			eastBoundingCoordinate]␣
			→[westBoundingCoordinate]}};
			northBoundingCoordinate = northbc/text();
			southBoundingCoordinate = southbc/text();
			eastBoundingCoordinate = eastbc/text();
			westBoundingCoordinate = westbc/text()</pre>
			
			Processor: CommonRootSolrField
			Configuration: *fgdc.geohash2*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source

Index.geohash_3	False		`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding ->{{[`
			`northBoundingCoordinate]␣`
			`↪[southBoundingCoordinate] [`
			`eastBoundingCoordinate]␣`
			`↪[westBoundingCoordinate]}};`
			`northBoundingCoordinate = northbc/text();`
			`southBoundingCoordinate = southbc/text();`
			`eastBoundingCoordinate = eastbc/text();`
			`westBoundingCoordinate = westbc/text()`
			
			Processor: CommonRootSolrField
			Configuration: *fgdc.geohash3*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

Index.geohash_4	False		`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding ->{{[`
			`northBoundingCoordinate]␣`
			`↪[southBoundingCoordinate] [`
			`eastBoundingCoordinate]␣`
			`↪[westBoundingCoordinate]}};`
			`northBoundingCoordinate = northbc/text();`
			`southBoundingCoordinate = southbc/text();`
			`eastBoundingCoordinate = eastbc/text();`
			`westBoundingCoordinate = westbc/text()`
			
			Processor: CommonRootSolrField
			Configuration: *fgdc.geohash4*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.geohash_5	False		```/*[local-name() = 'metadata']/idinfo/spdom/↪bounding ->{{[northBoundingCoordinate]␣↪[southBoundingCoordinate] [eastBoundingCoordinate]␣↪[westBoundingCoordinate]}};northBoundingCoordinate = northbc/text();southBoundingCoordinate = southbc/text();eastBoundingCoordinate = eastbc/text();westBoundingCoordinate = westbc/text()``` Processor: CommonRootSolrField Configuration: *fgdc.geohash5* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter
Index.geohash_6	False		```/*[local-name() = 'metadata']/idinfo/spdom/↪bounding ->{{[northBoundingCoordinate]␣↪[southBoundingCoordinate] [eastBoundingCoordinate]␣↪[westBoundingCoordinate]}};northBoundingCoordinate = northbc/text();southBoundingCoordinate = southbc/text();eastBoundingCoordinate = eastbc/text();westBoundingCoordinate = westbc/text()``` Processor: CommonRootSolrField Configuration: *fgdc.geohash6* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter

Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source
| *Index.geohash_7* | False | | ```
/*[local-name() = 'metadata']/idinfo/spdom/
→bounding ->{{[
northBoundingCoordinate]␣
→[southBoundingCoordinate] [
eastBoundingCoordinate]␣
→[westBoundingCoordinate]}};
northBoundingCoordinate = northbc/text();
southBoundingCoordinate = southbc/text();
eastBoundingCoordinate = eastbc/text();
westBoundingCoordinate = westbc/text()
```<br><br>Processor: CommonRootSolrField<br><br>Configuration: *fgdc.geohash7*<br><br>Notes: This bean uses a template populated from additional sources. See configuration for more details.<br><br>Converter: GeohashConverter |
| *Index.geohash_8* | False | | ```
/*[local-name() = 'metadata']/idinfo/spdom/
→bounding ->{{[
northBoundingCoordinate]␣
→[southBoundingCoordinate] [
eastBoundingCoordinate]␣
→[westBoundingCoordinate]}};
northBoundingCoordinate = northbc/text();
southBoundingCoordinate = southbc/text();
eastBoundingCoordinate = eastbc/text();
westBoundingCoordinate = westbc/text()
```<br><br>Processor: CommonRootSolrField<br><br>Configuration: *fgdc.geohash8*<br><br>Notes: This bean uses a template populated from additional sources. See configuration for more details.<br><br>Converter: GeohashConverter |

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Solr Field	Multi	Dedupe	Source

Index.geohash_9	False		`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding ->{{[`
			`northBoundingCoordinate]␣`
			`↪[southBoundingCoordinate] [`
			`eastBoundingCoordinate]␣`
			`↪[westBoundingCoordinate]}};`
			`northBoundingCoordinate = northbc/text();`
			`southBoundingCoordinate = southbc/text();`
			`eastBoundingCoordinate = eastbc/text();`
			`westBoundingCoordinate = westbc/text()`
			
			Processor: CommonRootSolrField
			Configuration: *fgdc.geohash9*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

19.3 Bean Configurations

19.3.1 fgdc.abstract

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.abstract" class="org.dataone.cn.indexer.parser.MergeSolrField">
    <constructor-arg name="name" value="abstract"/>
    <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/idinfo/
↪descript/abstract/descendant::text()"/>
    <constructor-arg name="delimiter" value=" "/>
    <property name="multivalue" value="false"/>
    <property name="dedupe" value="false"/>
</bean>
```

19.3.2 fgdc.beginDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.beginDate" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="beginDate"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/timeperd/timeinfo/rngdates/begdate/text()"/>
        <property name="multivalue" value="false"/>
        <property name="converter" ref="fgdcDateConverter"/>
    </bean>
```

19.3.3 fgdc.contactOrganization

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.contactOrganization" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="contactOrganization"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→distinfo/distrib/cntinfo/cntperp/cntorg/text() | /*[local-name() = 'metadata']/
→distinfo/distrib/cntinfo/cntorgp/cntorg/text()"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="true"/>
    </bean>
```

19.3.4 fgdc.eastBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.eastBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="eastBoundCoord"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/spdom/bounding/eastbc/text()"/>
        <property name="multivalue" value="false"/>
        <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

19.3.5 fgdc.westBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.westBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="westBoundCoord"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/spdom/bounding/westbc/text()"/>
        <property name="multivalue" value="false"/>
        <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

19.3.6 fgdc.northBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.northBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="northBoundCoord"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/spdom/bounding/northbc/text()"/>
        <property name="multivalue" value="false"/>
        <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

19.3.7 fgdc.southBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.southBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="southBoundCoord"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/spdom/bounding/southbc/text()"/>
        <property name="multivalue" value="false"/>
        <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

19.3.8 fgdc.edition

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.edition" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="edition"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/citeinfo/edition/text()"/>
        <property name="multivalue" value="false"/>
    </bean>
```

19.3.9 fgdc.endDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.endDate" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="endDate"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/timeperd/timeinfo/rngdates/enddate/text()"/>
        <property name="multivalue" value="false"/>
        <property name="converter" ref="fgdcDateConverter"/>
    </bean>
```

19.3.10 fgdc.gcmdKeyword

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.gcmdKeyword" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="gcmdKeyword"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/keywords/theme[themekt='GCMD Science Keywords']/themekey/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

19.3.11 fgdc.keywords

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.keywords" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="keywords"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/keywords/theme/themekey/text() | /*[local-name() = 'metadata']/idinfo/
→keywords/place/placekey/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
            <property name="disallowedValues">
                    <list>
                            <value>none</value>
                    </list>
            </property>
    </bean>
```

19.3.12 fgdc.geoform

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geoform" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="geoform"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/geoform/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

19.3.13 fgdc.genus

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.genus" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="genus"/>
            <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Genus&quot;]/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

19.3.14 fgdc.kingdom

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.kingdom" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="kingdom"/>
            <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Kingdom&quot;]/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

19.3.15 fgdc.order

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.order" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="order"/>
        <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Order&quot;]/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

19.3.16 fgdc.phylum

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.phylum" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="phylum"/>
        <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Phylum&quot;]/text() | //taxoncl/taxonrv[../taxonrn=&quot;Division&quot;]/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

19.3.17 fgdc.species

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.species" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="species"/>
        <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Species&quot;]/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

19.3.18 fgdc.family

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.family" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="family"/>
        <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Family&quot;]/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

19.3.19 fgdc.class

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.class" class="org.dataone.cn.indexer.parser.SolrField">
          <constructor-arg name="name" value="class"/>
          <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Class&quot;]/text()"/>
          <property name="multivalue" value="true"/>
     </bean>
```

19.3.20 fgdc.scientificName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.scientificName" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="fgdc.scientificNameRoot">
               <constructor-arg name="name" value="scientificName"/>
     </bean>
```

19.3.21 fgdc.origin

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.origin" class="org.dataone.cn.indexer.parser.SolrField">
          <constructor-arg name="name" value="origin"/>
          <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/origin/text()"/>
          <property name="multivalue" value="true"/>
     </bean>
```

19.3.22 fgdc.placeKey

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.placeKey" class="org.dataone.cn.indexer.parser.SolrField">
          <constructor-arg name="name" value="placeKey"/>
          <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/keywords/place/placekey/text()"/>
          <property name="multivalue" value="true"/>
     </bean>
```

19.3.23 fgdc.pubDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.pubDate" class="org.dataone.cn.indexer.parser.SolrField">
          <constructor-arg name="name" value="pubDate"/>
          <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/pubdate/text()"/>
          <property name="multivalue" value="false"/>
```

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```
        <property name="converter" ref="fgdcDateConverter"/>
    </bean>
```

19.3.24 fgdc.purpose

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.purpose" class="org.dataone.cn.indexer.parser.MergeSolrField">
        <constructor-arg name="name" value="purpose"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/idinfo/
→descript/purpose/descendant::text()"/>
        <constructor-arg name="delimiter" value=" "/>
        <property name="multivalue" value="false"/>
        <property name="dedupe" value="false"/>
    </bean>
```

19.3.25 fgdc.title

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.title" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="title"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/title/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

19.3.26 fgdc.web_url

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.web_url" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="webUrl"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/onlink/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

19.3.27 fgdc.fileID

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.fileID" class="org.dataone.cn.indexer.parser.ResolveSolrField">
            <constructor-arg name="name" value="fileID"/>
    </bean>
```

19.3.28 fgdc.fullText

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.fullText" class="org.dataone.cn.indexer.parser.AggregateSolrField">
            <property name="name" value="text"/>
            <property name="solrFields">
                    <list>
                    <ref bean="fgdc.text"/>
            </list>
            </property>
    </bean>
```

19.3.29 fgdc.presentationCat

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.presentationCat" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="presentationCat"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/geoform/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

19.3.30 fgdc.author

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.author" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="author"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/origin/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

19.3.31 fgdc.authorSurName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.authorSurName" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorSurName"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/origin[1]/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

19.3.32 fgdc.authorSurNameSort

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.authorSurNameSort" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorSurNameSort"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/citation/citeinfo/origin[1]/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

19.3.33 fgdc.investigator

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.investigator" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="investigator"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/citation/citeinfo/origin/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

19.3.34 fgdc.site

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.site" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="site"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/spdom/descgeog/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

19.3.35 fgdc.attributeName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.attributeName" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeName"/>
            <constructor-arg name="xpath" value="//attr/attrlabl/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
    </bean>
```

19.3.36 fgdc.attributeLabel

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.attributeLabel" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeLabel"/>
            <constructor-arg name="xpath" value="//attr/attalias/text()"/>
```

```
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="false"/>
    </bean>
```

19.3.37 fgdc.attributeDescription

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.attributeDescription" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="attributeDescription"/>
        <constructor-arg name="xpath" value="//attr/attrdef/text()"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="false"/>
    </bean>
```

19.3.38 fgdc.attributeUnit

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.attributeUnit" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="attributeUnit"/>
        <constructor-arg name="xpath" value="//attr/attrdomv//attrunit/text() | /
→/attr//attrdomv//edomv/text()"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="false"/>
    </bean>
```

19.3.39 fgdc.attributeText

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.attributeText" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="fgdc.attributeTextRoot">
                <constructor-arg name="name" value="attribute"/>
    </bean>
```

19.3.40 fgdc.geohash1

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash1" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
        <constructor-arg name="name" value="geohash_1"/>
        <property name="converter" ref="geohashConverter_1"/>
    </bean>
```

19.3.41 fgdc.geohash2

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.geohash2" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_2"/>
            <property name="converter" ref="geohashConverter_2"/>
    </bean>
```

19.3.42 fgdc.geohash3

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.geohash3" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_3"/>
            <property name="converter" ref="geohashConverter_3"/>
    </bean>
```

19.3.43 fgdc.geohash4

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.geohash4" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_4"/>
            <property name="converter" ref="geohashConverter_4"/>
    </bean>
```

19.3.44 fgdc.geohash5

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.geohash5" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_5"/>
            <property name="converter" ref="geohashConverter_5"/>
    </bean>
```

19.3.45 fgdc.geohash6

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.geohash6" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_6"/>
            <property name="converter" ref="geohashConverter_6"/>
    </bean>
```

19.3.46 fgdc.geohash7

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash7" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_7"/>
            <property name="converter" ref="geohashConverter_7"/>
    </bean>
```

19.3.47 fgdc.geohash8

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash8" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_8"/>
            <property name="converter" ref="geohashConverter_8"/>
    </bean>
```

19.3.48 fgdc.geohash9

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash9" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_9"/>
            <property name="converter" ref="geohashConverter_9"/>
    </bean>
```

FGDC, v001.2-1999

Describes parser configuration for: fgdcstd00121999Subprocessor

20.1 Format IDs Processed

This parser processes the following DataONE format IDs:

- Content Standard for Digital Geospatial Metadata, Metadata Profile for Shoreline Data, version 001.2-1999
  formatId: `FGDC-STD-001.2-1999`

A full list of DataONE format IDs can be found at https://cn.dataone.org/cn/v2/formats/

20.2 Fields

The following fields in the solr index are populated from values retrieved from this type of metadata document. Note that these are in addition to the information extracted from *System Metadata Parser*.

Solr Field	Multi	Dedupe	Source

Index.abstract	False	False	`/*[local-name() = 'metadata']/idinfo/descript/`
			`↪abstract/`
			`descendant::text()`
			
			Processor: MergeSolrField
			Configuration: *fgdc.abstract*

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.beginDate	False	False	`/*[local-name() = 'metadata']/idinfo/timeperd/`
			`↪timeinfo/`
			`rngdates/begdate/text()`
			
			Processor: SolrField
			
			Configuration: *fgdc.beginDate*
			
			Converter: FgdcDateConverter

Index.contactOrganization	True	True	`/*[local-name() = 'metadata']/distinfo/distrib/` `↪cntinfo/` `cntperp/cntorg/text()	/*[local-name() =` `'metadata']/distinfo/distrib/cntinfo/cntorgp/` `↪cntorg/` `text()` Processor: SolrField Configuration: *fgdc.contactOrganization*

Index.eastBoundCoord	False	False	`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding/eastbc/`
			`text()`
			
			Processor: SolrField
			
			Configuration: *fgdc.eastBoundCoord*
			
			Converter: SolrLongitudeConverter

Index.westBoundCoord	False	False	`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding/westbc/`
			`text()`
			
			Processor: SolrField
			
			Configuration: *fgdc.westBoundCoord*
			
			Converter: SolrLongitudeConverter

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.
northBoundCoord
	False	False	`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding/northbc/`
			`text()`
			
			Processor: SolrField
			
			Configuration: *fgdc.northBoundCoord*
			
			Converter: SolrLongitudeConverter

Index.
southBoundCoord
	False	False	`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding/southbc/`
			`text()`
			
			Processor: SolrField
			
			Configuration: *fgdc.southBoundCoord*
			
			Converter: SolrLongitudeConverter

Index.edition	False	False	`/*[local-name() = 'metadata']/idinfo/citeinfo/`
			`↪edition/text()`
			
			Processor: SolrField
			Configuration: *fgdc.edition*

Index.endDate	False	False	`/*[local-name() = 'metadata']/idinfo/timeperd/`
			`↪timeinfo/`
			`rngdates/enddate/text()`
			
			Processor: SolrField
			Configuration: *fgdc.endDate*
			
			Converter: FgdcDateConverter

Index.gcmdKeyword	True	False	`/*[local-name() = 'metadata']/idinfo/keywords/`
			`↪theme[themekt=`
			`'GCMD Science Keywords']/themekey/text()`
			
			Processor: SolrField
			Configuration: *fgdc.gcmdKeyword*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.keywords	True	True	`/*[local-name() = 'metadata']/idinfo/keywords/` `↪theme/` `themekey/text() | /*[local-name() = 'metadata']/` `idinfo/keywords/place/placekey/text()` Processor: SolrField Configuration: *fgdc.keywords*
Index.geoform	False	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `geoform/text()` Processor: SolrField Configuration: *fgdc.geoform*
Index.genus	True	False	`//taxoncl/taxonrv[../taxonrn="Genus"]/text()` Processor: SolrField Configuration: *fgdc.genus*
Index.kingdom	True	False	`//taxoncl/taxonrv[../taxonrn="Kingdom"]/text()` Processor: SolrField Configuration: *fgdc.kingdom*
Index.order	True	False	`//taxoncl/taxonrv[../taxonrn="Order"]/text()` Processor: SolrField Configuration: *fgdc.order*
Index.phylum	True	False	`//taxoncl/taxonrv[../taxonrn="Phylum"]/text() |` `↪//taxoncl/` `taxonrv[../taxonrn="Division"]/text()` Processor: SolrField Configuration: *fgdc.phylum*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.species	True	False	`//taxoncl/taxonrv[../taxonrn="Species"]/text()` Processor: SolrField Configuration: *fgdc.species*
Index.family	True	False	`//taxoncl/taxonrv[../taxonrn="Family"]/text()` Processor: SolrField Configuration: *fgdc.family*
Index.class	True	False	`//taxoncl/taxonrv[../taxonrn="Class"]/text()` Processor: SolrField Configuration: *fgdc.class*

Index.scientificName	False		`//taxoncl/taxonrv[../taxonrn="Genus"] ->{`
			`↪{[genus] [species]`
			`}}; genus = ../taxonrv/text(); species =`
			`↪taxonrv/`
			`text()`
			
			Processor: CommonRootSolrField
			Configuration: *fgdc.scientificName*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.

Index.origin	True	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`origin/text()`
			
			Processor: SolrField
			Configuration: *fgdc.origin*

Index.placeKey	True	False	`/*[local-name() = 'metadata']/idinfo/keywords/`
			`↪place/`
			`placekey/text()`
			
			Processor: SolrField
			Configuration: *fgdc.placeKey*

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.pubDate	False	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `pubdate/text()` Processor: SolrField Configuration: *fgdc.pubDate* Converter: FgdcDateConverter
Index.purpose	False	False	`/*[local-name() = 'metadata']/idinfo/descript/` `↪purpose/` `descendant::text()` Processor: MergeSolrField Configuration: *fgdc.purpose*
Index.title	False	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `title/text()` Processor: SolrField Configuration: *fgdc.title*
Index.webUrl	True	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `onlink/text()` Processor: SolrField Configuration: *fgdc.web_url*
Index.fileID			Processor: ResolveSolrField Configuration: *fgdc.fileID* Notes: SolrField which configures the resolve url for the document being processed. Converter:
Index.text			Processor: AggregateSolrField Configuration: *fgdc.fullText* Converter:

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index. presentationCat	False	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `geoform/text()` Processor: SolrField Configuration: *fgdc.presentationCat*
Index.author	False	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `origin/text()` Processor: SolrField Configuration: *fgdc.author*
Index.authorSurName	False	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `origin[1]/text()` Processor: SolrField Configuration: *fgdc.authorSurName*
Index. authorSurNameSort	False	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `origin[1]/text()` Processor: SolrField Configuration: *fgdc.authorSurNameSort*
Index.investigator	True	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `origin/text()` Processor: SolrField Configuration: *fgdc.investigator*
Index.site	True	False	`/*[local-name() = 'metadata']/idinfo/spdom/` `↪descgeog/text()` Processor: SolrField Configuration: *fgdc.site*

Solr Field	Multi	Dedup	Source
Index.attributeName	True	False	`//attr/attrlabl/text()` Processor: SolrField Configuration: *fgdc.attributeName*
Index.attributeLabel	True	False	`//attr/attalias/text()` Processor: SolrField Configuration: *fgdc.attributeLabel*
Index.attributeDescription	True	False	`//attr/attrdef/text()` Processor: SolrField Configuration: *fgdc.attributeDescription*
Index.attributeUnit	True	False	`//attr/attrdomv//attrunit/text()	//attr//` `↪attrdomv//edomv/` `text()` Processor: SolrField Configuration: *fgdc.attributeUnit*

Index.attribute	False		`//attr ->{{[attributeName] [attributeLabel] [`
			`attributeDescription] [attributeUnit]}};`
			`attributeName = attrlabl/text(); attributeLabel`
			`↪=`
			`attalias/text(); attributeDescription = attrdef/`
			`text(); attributeUnit = attrdomv//attrunit/`
			`↪text() |`
			`.//attrdomv//edomv/text()`
			
			Processor: CommonRootSolrField
			Configuration: *fgdc.attributeText*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.geohash_1	False		`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding ->{{[`
			`northBoundingCoordinate]␣`
			`↪[southBoundingCoordinate] [`
			`eastBoundingCoordinate]␣`
			`↪[westBoundingCoordinate]}};`
			`northBoundingCoordinate = northbc/text();`
			`southBoundingCoordinate = southbc/text();`
			`eastBoundingCoordinate = eastbc/text();`
			`westBoundingCoordinate = westbc/text()`
			
			Processor: CommonRootSolrField
			
			Configuration: *fgdc.geohash1*
			
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			
			Converter: GeohashConverter

Index.geohash_2	False		`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding ->{{[`
			`northBoundingCoordinate]␣`
			`↪[southBoundingCoordinate] [`
			`eastBoundingCoordinate]␣`
			`↪[westBoundingCoordinate]}};`
			`northBoundingCoordinate = northbc/text();`
			`southBoundingCoordinate = southbc/text();`
			`eastBoundingCoordinate = eastbc/text();`
			`westBoundingCoordinate = westbc/text()`
			
			Processor: CommonRootSolrField
			
			Configuration: *fgdc.geohash2*
			
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			
			Converter: GeohashConverter

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.geohash_3	False		`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding ->{{[`
			`northBoundingCoordinate]␣`
			`↪[southBoundingCoordinate] [`
			`eastBoundingCoordinate]␣`
			`↪[westBoundingCoordinate]}};`
			`northBoundingCoordinate = northbc/text();`
			`southBoundingCoordinate = southbc/text();`
			`eastBoundingCoordinate = eastbc/text();`
			`westBoundingCoordinate = westbc/text()`
			
			Processor: CommonRootSolrField
			Configuration: *fgdc.geohash3*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

Index.geohash_4	False		`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding ->{{[`
			`northBoundingCoordinate]␣`
			`↪[southBoundingCoordinate] [`
			`eastBoundingCoordinate]␣`
			`↪[westBoundingCoordinate]}};`
			`northBoundingCoordinate = northbc/text();`
			`southBoundingCoordinate = southbc/text();`
			`eastBoundingCoordinate = eastbc/text();`
			`westBoundingCoordinate = westbc/text()`
			
			Processor: CommonRootSolrField
			Configuration: *fgdc.geohash4*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.geohash_5	False		`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding ->{{[`
			`northBoundingCoordinate]␣`
			`↪[southBoundingCoordinate] [`
			`eastBoundingCoordinate]␣`
			`↪[westBoundingCoordinate]}};`
			`northBoundingCoordinate = northbc/text();`
			`southBoundingCoordinate = southbc/text();`
			`eastBoundingCoordinate = eastbc/text();`
			`westBoundingCoordinate = westbc/text()`
			
			Processor: CommonRootSolrField
			
			Configuration: *fgdc.geohash5*
			
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			
			Converter: GeohashConverter

Index.geohash_6	False		`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding ->{{[`
			`northBoundingCoordinate]␣`
			`↪[southBoundingCoordinate] [`
			`eastBoundingCoordinate]␣`
			`↪[westBoundingCoordinate]}};`
			`northBoundingCoordinate = northbc/text();`
			`southBoundingCoordinate = southbc/text();`
			`eastBoundingCoordinate = eastbc/text();`
			`westBoundingCoordinate = westbc/text()`
			
			Processor: CommonRootSolrField
			
			Configuration: *fgdc.geohash6*
			
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			
			Converter: GeohashConverter

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.geohash_7	False		```/*[local-name() = 'metadata']/idinfo/spdom/```
			```→bounding ->{{[```
			```northBoundingCoordinate]␣```
			```→[southBoundingCoordinate] [```
			```eastBoundingCoordinate]␣```
			```→[westBoundingCoordinate]}};```
			```northBoundingCoordinate = northbc/text();```
			```southBoundingCoordinate = southbc/text();```
			```eastBoundingCoordinate = eastbc/text();```
			```westBoundingCoordinate = westbc/text()```
			
			Processor: CommonRootSolrField
			Configuration: *fgdc.geohash7*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

Index.geohash_8	False		```/*[local-name() = 'metadata']/idinfo/spdom/```
			```→bounding ->{{[```
			```northBoundingCoordinate]␣```
			```→[southBoundingCoordinate] [```
			```eastBoundingCoordinate]␣```
			```→[westBoundingCoordinate]}};```
			```northBoundingCoordinate = northbc/text();```
			```southBoundingCoordinate = southbc/text();```
			```eastBoundingCoordinate = eastbc/text();```
			```westBoundingCoordinate = westbc/text()```
			
			Processor: CommonRootSolrField
			Configuration: *fgdc.geohash8*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source
Index.geohash_9	False		<code>/*[local-name() = 'metadata']/idinfo/spdom/</code> ↪<code>bounding ->{{[</code> <code>northBoundingCoordinate]␣</code> ↪<code>[southBoundingCoordinate] [</code> <code>eastBoundingCoordinate]␣</code> ↪<code>[westBoundingCoordinate]}};</code> <code>northBoundingCoordinate = northbc/text();</code> <code>southBoundingCoordinate = southbc/text();</code> <code>eastBoundingCoordinate = eastbc/text();</code> <code>westBoundingCoordinate = westbc/text()</code> Processor: CommonRootSolrField Configuration: *fgdc.geohash9* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter

20.3 Bean Configurations

20.3.1 fgdc.abstract

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.abstract" class="org.dataone.cn.indexer.parser.MergeSolrField">
    <constructor-arg name="name" value="abstract"/>
    <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/idinfo/
↪descript/abstract/descendant::text()"/>
    <constructor-arg name="delimiter" value=" "/>
    <property name="multivalue" value="false"/>
    <property name="dedupe" value="false"/>
</bean>
```

20.3.2 fgdc.beginDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.beginDate" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="beginDate"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/timeperd/timeinfo/rngdates/begdate/text()"/>
        <property name="multivalue" value="false"/>
        <property name="converter" ref="fgdcDateConverter"/>
    </bean>
```

20.3.3 fgdc.contactOrganization

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.contactOrganization" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="contactOrganization"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→distinfo/distrib/cntinfo/cntperp/cntorg/text() | /*[local-name() = 'metadata']/
→distinfo/distrib/cntinfo/cntorgp/cntorg/text()"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="true"/>
    </bean>
```

20.3.4 fgdc.eastBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.eastBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="eastBoundCoord"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/spdom/bounding/eastbc/text()"/>
        <property name="multivalue" value="false"/>
        <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

20.3.5 fgdc.westBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.westBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="westBoundCoord"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/spdom/bounding/westbc/text()"/>
        <property name="multivalue" value="false"/>
        <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

20.3.6 fgdc.northBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.northBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="northBoundCoord"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/spdom/bounding/northbc/text()"/>
        <property name="multivalue" value="false"/>
        <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

20.3.7 fgdc.southBoundCoord

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.southBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="southBoundCoord"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/spdom/bounding/southbc/text()"/>
        <property name="multivalue" value="false"/>
        <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

20.3.8 fgdc.edition

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.edition" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="edition"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/citeinfo/edition/text()"/>
        <property name="multivalue" value="false"/>
    </bean>
```

20.3.9 fgdc.endDate

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.endDate" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="endDate"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/timeperd/timeinfo/rngdates/enddate/text()"/>
        <property name="multivalue" value="false"/>
        <property name="converter" ref="fgdcDateConverter"/>
    </bean>
```

20.3.10 fgdc.gcmdKeyword

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.gcmdKeyword" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="gcmdKeyword"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/keywords/theme[themekt='GCMD Science Keywords']/themekey/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

20.3.11 fgdc.keywords

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.keywords" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="keywords"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/keywords/theme/themekey/text() | /*[local-name() = 'metadata']/idinfo/
→keywords/place/placekey/text()"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="true"/>
        <property name="disallowedValues">
                <list>
                        <value>none</value>
                </list>
        </property>
    </bean>
```

20.3.12 fgdc.geoform

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geoform" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="geoform"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/geoform/text()"/>
        <property name="multivalue" value="false"/>
    </bean>
```

20.3.13 fgdc.genus

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.genus" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="genus"/>
        <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Genus&quot;]/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

20.3.14 fgdc.kingdom

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.kingdom" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="kingdom"/>
        <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Kingdom&quot;]/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

20.3.15 fgdc.order

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.order" class="org.dataone.cn.indexer.parser.SolrField">
          <constructor-arg name="name" value="order"/>
          <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Order&quot;]/text()"/>
          <property name="multivalue" value="true"/>
     </bean>
```

20.3.16 fgdc.phylum

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.phylum" class="org.dataone.cn.indexer.parser.SolrField">
          <constructor-arg name="name" value="phylum"/>
          <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Phylum&quot;]/text() | //taxoncl/taxonrv[../taxonrn=&quot;Division&quot;]/text()"/>
          <property name="multivalue" value="true"/>
     </bean>
```

20.3.17 fgdc.species

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.species" class="org.dataone.cn.indexer.parser.SolrField">
          <constructor-arg name="name" value="species"/>
          <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Species&quot;]/text()"/>
          <property name="multivalue" value="true"/>
     </bean>
```

20.3.18 fgdc.family

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.family" class="org.dataone.cn.indexer.parser.SolrField">
          <constructor-arg name="name" value="family"/>
          <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Family&quot;]/text()"/>
          <property name="multivalue" value="true"/>
     </bean>
```

20.3.19 fgdc.class

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.class" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="class"/>
            <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Class&quot;]/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

20.3.20 fgdc.scientificName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.scientificName" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="fgdc.scientificNameRoot">
                <constructor-arg name="name" value="scientificName"/>
    </bean>
```

20.3.21 fgdc.origin

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.origin" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="origin"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/origin/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

20.3.22 fgdc.placeKey

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.placeKey" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="placeKey"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/keywords/place/placekey/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

20.3.23 fgdc.pubDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.pubDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="pubDate"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/pubdate/text()"/>
            <property name="multivalue" value="false"/>
```

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```xml
        <property name="converter" ref="fgdcDateConverter"/>
    </bean>
```

20.3.24 fgdc.purpose

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.purpose" class="org.dataone.cn.indexer.parser.MergeSolrField">
        <constructor-arg name="name" value="purpose"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/idinfo/
→descript/purpose/descendant::text()"/>
        <constructor-arg name="delimiter" value=" "/>
        <property name="multivalue" value="false"/>
        <property name="dedupe" value="false"/>
    </bean>
```

20.3.25 fgdc.title

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.title" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="title"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/title/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

20.3.26 fgdc.web_url

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.web_url" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="webUrl"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/onlink/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

20.3.27 fgdc.fileID

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.fileID" class="org.dataone.cn.indexer.parser.ResolveSolrField">
            <constructor-arg name="name" value="fileID"/>
    </bean>
```

20.3.28 fgdc.fullText

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.fullText" class="org.dataone.cn.indexer.parser.AggregateSolrField">
            <property name="name" value="text"/>
            <property name="solrFields">
                    <list>
                    <ref bean="fgdc.text"/>
            </list>
            </property>
    </bean>
```

20.3.29 fgdc.presentationCat

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.presentationCat" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="presentationCat"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/geoform/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

20.3.30 fgdc.author

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.author" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="author"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/origin/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

20.3.31 fgdc.authorSurName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.authorSurName" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorSurName"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/origin[1]/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

20.3.32 fgdc.authorSurNameSort

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.authorSurNameSort" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorSurNameSort"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/citation/citeinfo/origin[1]/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

20.3.33 fgdc.investigator

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.investigator" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="investigator"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/citation/citeinfo/origin/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

20.3.34 fgdc.site

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.site" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="site"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/spdom/descgeog/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

20.3.35 fgdc.attributeName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.attributeName" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeName"/>
            <constructor-arg name="xpath" value="//attr/attrlabl/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
    </bean>
```

20.3.36 fgdc.attributeLabel

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.attributeLabel" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeLabel"/>
            <constructor-arg name="xpath" value="//attr/attalias/text()"/>
```

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```
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
        </bean>
```

20.3.37 fgdc.attributeDescription

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.attributeDescription" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeDescription"/>
            <constructor-arg name="xpath" value="//attr/attrdef/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
        </bean>
```

20.3.38 fgdc.attributeUnit

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.attributeUnit" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeUnit"/>
            <constructor-arg name="xpath" value="//attr/attrdomv//attrunit/text() | /
↪/attr//attrdomv//edomv/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
        </bean>
```

20.3.39 fgdc.attributeText

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.attributeText" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="fgdc.attributeTextRoot">
                <constructor-arg name="name" value="attribute"/>
        </bean>
```

20.3.40 fgdc.geohash1

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.geohash1" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_1"/>
            <property name="converter" ref="geohashConverter_1"/>
        </bean>
```

20.3.41 fgdc.geohash2

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="fgdc.geohash2" class="org.dataone.cn.indexer.parser.CommonRootSolrField"
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_2"/>
            <property name="converter" ref="geohashConverter_2"/>
    </bean>
```

20.3.42 fgdc.geohash3

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="fgdc.geohash3" class="org.dataone.cn.indexer.parser.CommonRootSolrField"
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_3"/>
            <property name="converter" ref="geohashConverter_3"/>
    </bean>
```

20.3.43 fgdc.geohash4

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="fgdc.geohash4" class="org.dataone.cn.indexer.parser.CommonRootSolrField"
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_4"/>
            <property name="converter" ref="geohashConverter_4"/>
    </bean>
```

20.3.44 fgdc.geohash5

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="fgdc.geohash5" class="org.dataone.cn.indexer.parser.CommonRootSolrField"
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_5"/>
            <property name="converter" ref="geohashConverter_5"/>
    </bean>
```

20.3.45 fgdc.geohash6

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="fgdc.geohash6" class="org.dataone.cn.indexer.parser.CommonRootSolrField"
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_6"/>
            <property name="converter" ref="geohashConverter_6"/>
    </bean>
```

20.3.46 fgdc.geohash7

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash7" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_7"/>
            <property name="converter" ref="geohashConverter_7"/>
    </bean>
```

20.3.47 fgdc.geohash8

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash8" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_8"/>
            <property name="converter" ref="geohashConverter_8"/>
    </bean>
```

20.3.48 fgdc.geohash9

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash9" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_9"/>
            <property name="converter" ref="geohashConverter_9"/>
    </bean>
```

ISO TC-211, NOAA Variant

Describes parser configuration for: isotc211NoaaSubprocessor

21.1 Format IDs Processed

This parser processes the following DataONE format IDs:

- NOAA Variant Geographic MetaData (GMD) Extensible Markup Language
  formatId: `http://www.isotc211.org/2005/gmd-noaa`

A full list of DataONE format IDs can be found at https://cn.dataone.org/cn/v2/formats/

21.2 Fields

The following fields in the solr index are populated from values retrieved from this type of metadata document. Note that these are in addition to the information extracted from *System Metadata Parser*.

Solr Field	Multi	Dedupe	Source
Index.abstract	False	False	```//gmd:identificationInfo/gmd:MD_↵→DataIdentification/gmd:abstract/gco:CharacterString/text()``` Processor: SolrField Configuration: *isotc.abstract*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.author	False	False	`(//gmd:CI_ResponsibleParty/gmd:individualName/gco:CharacterString/text() | //gmd:CI_ResponsibleParty/gmd:individualName/gmx:Anchor/text())[1]` Processor: SolrField Configuration: *isotc.author*
Index.authorSurName	False	False	`(//gmd:CI_ResponsibleParty/gmd:individualName/gco:CharacterString/text() | //gmd:CI_ResponsibleParty/gmd:individualName/gmx:Anchor/text())[1]` Processor: SolrField Configuration: *isotc.authorSurName*
Index. authorSurNameSort	False	False	`(//gmd:CI_ResponsibleParty/gmd:individualName/gco:CharacterString/text() | //gmd:CI_ResponsibleParty/gmd:individualName/gmx:Anchor/text())[1]` Processor: SolrField Configuration: *isotc.authorSurNameSort*
Index. contactOrganization	False	False	`(//gmd:CI_ResponsibleParty/gmd:organisationName/gco:CharacterString/text())[1]` Processor: SolrField Configuration: *isotc.contactOrganization*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.origin	True	True	

			```//gmd:CI_ResponsibleParty[gmd:role/gmd:CI_```
			 ```→RoleCode/text() =```
			 ```"owner" or gmd:role/gmd:CI_RoleCode/text() =```
			 ```"originator" or gmd:role/gmd:CI_RoleCode/text()```
			 ```→=```
			 ```"principalInvestigator" or gmd:role/gmd:CI_```
			 ```→RoleCode/```
			 ```text() = "author"]/gmd:individualName/```
			 ``gco:CharacterString/text()
				//```
				 ```gmd:CI_ResponsibleParty[(gmd:role/gmd:CI_```
				 ```→RoleCode/```
				 ```text() = "owner" or gmd:role/gmd:CI_RoleCode/```
				 ```→text()```
				 ```= "originator" or gmd:role/gmd:CI_RoleCode/```
				 ```→text() =```
				 ```"principalInvestigator" or gmd:role/gmd:CI_```
				 ```→RoleCode/```
				 ```text() = "author") and (not(gmd:individualName)```
				 ```→or```
				 ```gmd:individualName[@gco:nilReason = "missing```
				 ```→"])]/```
				 ```gmd:organisationName/gco:CharacterString/text()```
				
				 Processor: SolrField
				 Configuration: *isotc.origin*

Index.investigator	True	True	

			```//gmd:CI_ResponsibleParty/gmd:individualName/```
			 ``gco:CharacterString/text()
				//```
				 ```gmd:CI_ResponsibleParty/gmd:individualName/```
				 ```gmx:Anchor/text()```
				
				 Processor: SolrField
				 Configuration: *isotc.investigator*

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.pubDate	False	False	

```
if (//gmd:identificationInfo/*/gmd:citation/
↪gmd:CI_Citation/
gmd:date/gmd:CI_Date/gmd:date[
following-sibling::gmd:dateType/gmd:CI_
↪DateTypeCode/
text() = 'publication']/gco:Date/text())
      then //gmd:identificationInfo/*/
↪gmd:citation/
gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date[
following-sibling::gmd:dateType/gmd:CI_
↪DateTypeCode/
text() = 'publication']/gco:Date/text()
else if (//gmd:identificationInfo/*/
↪gmd:citation/
gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date[
following-sibling::gmd:dateType/gmd:CI_
↪DateTypeCode/
text() = 'publication']/gco:DateTime/text())
         then //gmd:identificationInfo/*/
gmd:citation/gmd:CI_Citation/gmd:date/gmd:CI_
↪Date/
gmd:date[following-sibling::gmd:dateType/
gmd:CI_DateTypeCode/text() = 'publication']/
gco:DateTime/text()           else if (//
gmd:identificationInfo/*/gmd:citation/
gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date/
gco:Date[1]/text())                  then //
gmd:identificationInfo/*/gmd:citation/
gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date/
gco:Date[1]/text()            else if (//
gmd:identificationInfo/*/gmd:citation/
gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date/
gco:DateTime[1]/text())                 then //
gmd:identificationInfo/*/gmd:citation/
gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date/
gco:DateTime[1]/text()          else ()
```

Processor: SolrField

Configuration: *isotc.pubDate*

Converter: SolrDateConverter

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.beginDate	False	False	`//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:extent/gmd:EX_Extent/gmd:temporalElement/` `gmd:EX_TemporalExtent/gmd:extent/*[local-name()` `↪=` `'TimePeriod']/*[local-name() = 'beginPosition']/` `text()` Processor: SolrField Configuration: *isotc.beginDate* Converter: SolrDateConverter
Index.endDate	False	False	`//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:extent/gmd:EX_Extent/gmd:temporalElement/` `gmd:EX_TemporalExtent/gmd:extent/*[local-name()` `↪=` `'TimePeriod']/*[local-name() = 'endPosition']/` `↪text()` Processor: SolrField Configuration: *isotc.endDate* Converter: SolrDateConverter
Index.title	False	False	`//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:citation/gmd:CI_Citation/gmd:title/` `gco:CharacterString/text()	//` `gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:citation/gmd:CI_Citation/gmd:title/` `↪gmx:Anchor/` `text()` Processor: SolrField Configuration: *isotc.title*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.keywords	True	False	`//gmd:identificationInfo/gmd:MD_`
			`↪DataIdentification/`
			`gmd:descriptiveKeywords/gmd:MD_Keywords/`
			`↪gmd:keyword/`
			`gmx:Anchor/text() | //gmd:identificationInfo/`
			`gmd:MD_DataIdentification/`
			`↪gmd:descriptiveKeywords/`
			`gmd:MD_Keywords/gmd:keyword/gco:CharacterString/`
			`text()`
			
			Processor: SolrField
			Configuration: *isotc.keywords*

Index.eastBoundCoord	False	False	`//gmd:identificationInfo/gmd:MD_`
			`↪DataIdentification/`
			`gmd:extent/gmd:EX_Extent/gmd:geographicElement/`
			`gmd:EX_GeographicBoundingBox/`
			`↪gmd:eastBoundLongitude/`
			`gco:Decimal/text()`
			
			Processor: SolrField
			Configuration: *isotc.eastBoundCoord*

Index.westBoundCoord	False	False	`//gmd:identificationInfo/gmd:MD_`
			`↪DataIdentification/`
			`gmd:extent/gmd:EX_Extent/gmd:geographicElement/`
			`gmd:EX_GeographicBoundingBox/`
			`↪gmd:westBoundLongitude/`
			`gco:Decimal/text()`
			
			Processor: SolrField
			Configuration: *isotc.westBoundCoord*

Index.southBoundCoord	False	False	`//gmd:identificationInfo/gmd:MD_`
			`↪DataIdentification/`
			`gmd:extent/gmd:EX_Extent/gmd:geographicElement/`
			`gmd:EX_GeographicBoundingBox/`
			`↪gmd:southBoundLatitude/`
			`gco:Decimal/text()`
			
			Processor: SolrField
			Configuration: *isotc.southBoundCoord*

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

*Index.
northBoundCoord*
	False	False	`//gmd:identificationInfo/gmd:MD_`
			`↪DataIdentification/`
			`gmd:extent/gmd:EX_Extent/gmd:geographicElement/`
			`gmd:EX_GeographicBoundingBox/`
			`↪gmd:northBoundLatitude/`
			`gco:Decimal/text()`
			
			Processor: SolrField
			Configuration: *isotc.northBoundCoord*

Index.geohash_9	False		`//gmd:identificationInfo/gmd:MD_`
			`↪DataIdentification/`
			`gmd:extent/gmd:EX_Extent/gmd:geographicElement/`
			`gmd:EX_GeographicBoundingBox ->{{[`
			`northBoundingCoordinate]␣`
			`↪[southBoundingCoordinate] [`
			`eastBoundingCoordinate]␣`
			`↪[westBoundingCoordinate]}};`
			`northBoundingCoordinate =␣`
			`↪gmd:northBoundLatitude/`
			`gco:Decimal/text(); southBoundingCoordinate =`
			`gmd:southBoundLatitude/gco:Decimal/text();`
			`eastBoundingCoordinate = gmd:eastBoundLongitude/`
			`gco:Decimal/text(); westBoundingCoordinate =`
			`gmd:westBoundLongitude/gco:Decimal/text()`
			
			Processor: CommonRootSolrField
			Configuration: *isotc.geohash9*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

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Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.geohash_1	False		`//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:extent/gmd:EX_Extent/gmd:geographicElement/` `gmd:EX_GeographicBoundingBox ->{{[` `northBoundingCoordinate]␣` `↪[southBoundingCoordinate] [` `eastBoundingCoordinate]␣` `↪[westBoundingCoordinate]}};` `northBoundingCoordinate =␣` `↪gmd:northBoundLatitude/` `gco:Decimal/text(); southBoundingCoordinate =` `gmd:southBoundLatitude/gco:Decimal/text();` `eastBoundingCoordinate = gmd:eastBoundLongitude/` `gco:Decimal/text(); westBoundingCoordinate =` `gmd:westBoundLongitude/gco:Decimal/text()` Processor: CommonRootSolrField Configuration: *isotc.geohash1* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter
Index.geohash_2	False		`//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:extent/gmd:EX_Extent/gmd:geographicElement/` `gmd:EX_GeographicBoundingBox ->{{[` `northBoundingCoordinate]␣` `↪[southBoundingCoordinate] [` `eastBoundingCoordinate]␣` `↪[westBoundingCoordinate]}};` `northBoundingCoordinate =␣` `↪gmd:northBoundLatitude/` `gco:Decimal/text(); southBoundingCoordinate =` `gmd:southBoundLatitude/gco:Decimal/text();` `eastBoundingCoordinate = gmd:eastBoundLongitude/` `gco:Decimal/text(); westBoundingCoordinate =` `gmd:westBoundLongitude/gco:Decimal/text()` Processor: CommonRootSolrField Configuration: *isotc.geohash2* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter

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Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source
Index.geohash_3	False		`//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:extent/gmd:EX_Extent/gmd:geographicElement/` `gmd:EX_GeographicBoundingBox ->{{[` `northBoundingCoordinate]␣` `↪[southBoundingCoordinate] [` `eastBoundingCoordinate]␣` `↪[westBoundingCoordinate]}};` `northBoundingCoordinate =␣` `↪gmd:northBoundLatitude/` `gco:Decimal/text(); southBoundingCoordinate =` `gmd:southBoundLatitude/gco:Decimal/text();` `eastBoundingCoordinate = gmd:eastBoundLongitude/` `gco:Decimal/text(); westBoundingCoordinate =` `gmd:westBoundLongitude/gco:Decimal/text()` Processor: CommonRootSolrField Configuration: *isotc.geohash3* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter
Index.geohash_4	False		`//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:extent/gmd:EX_Extent/gmd:geographicElement/` `gmd:EX_GeographicBoundingBox ->{{[` `northBoundingCoordinate]␣` `↪[southBoundingCoordinate] [` `eastBoundingCoordinate]␣` `↪[westBoundingCoordinate]}};` `northBoundingCoordinate =␣` `↪gmd:northBoundLatitude/` `gco:Decimal/text(); southBoundingCoordinate =` `gmd:southBoundLatitude/gco:Decimal/text();` `eastBoundingCoordinate = gmd:eastBoundLongitude/` `gco:Decimal/text(); westBoundingCoordinate =` `gmd:westBoundLongitude/gco:Decimal/text()` Processor: CommonRootSolrField Configuration: *isotc.geohash4* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter

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Solr Field	Multi	Dedupe	Source

Index.geohash_5	False		`//gmd:identificationInfo/gmd:MD_`
			`↪DataIdentification/`
			`gmd:extent/gmd:EX_Extent/gmd:geographicElement/`
			`gmd:EX_GeographicBoundingBox ->{{[`
			`northBoundingCoordinate]␣`
			`↪[southBoundingCoordinate] [`
			`eastBoundingCoordinate]␣`
			`↪[westBoundingCoordinate]}};`
			`northBoundingCoordinate =␣`
			`↪gmd:northBoundLatitude/`
			`gco:Decimal/text(); southBoundingCoordinate =`
			`gmd:southBoundLatitude/gco:Decimal/text();`
			`eastBoundingCoordinate = gmd:eastBoundLongitude/`
			`gco:Decimal/text(); westBoundingCoordinate =`
			`gmd:westBoundLongitude/gco:Decimal/text()`
			
			Processor: CommonRootSolrField
			Configuration: *isotc.geohash5*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

Index.geohash_6	False		`//gmd:identificationInfo/gmd:MD_`
			`↪DataIdentification/`
			`gmd:extent/gmd:EX_Extent/gmd:geographicElement/`
			`gmd:EX_GeographicBoundingBox ->{{[`
			`northBoundingCoordinate]␣`
			`↪[southBoundingCoordinate] [`
			`eastBoundingCoordinate]␣`
			`↪[westBoundingCoordinate]}};`
			`northBoundingCoordinate =␣`
			`↪gmd:northBoundLatitude/`
			`gco:Decimal/text(); southBoundingCoordinate =`
			`gmd:southBoundLatitude/gco:Decimal/text();`
			`eastBoundingCoordinate = gmd:eastBoundLongitude/`
			`gco:Decimal/text(); westBoundingCoordinate =`
			`gmd:westBoundLongitude/gco:Decimal/text()`
			
			Processor: CommonRootSolrField
			Configuration: *isotc.geohash6*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

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Solr Field	Multi	Dedupe	Source
Index.geohash_7	False		`//gmd:identificationInfo/gmd:MD_` `→DataIdentification/` `gmd:extent/gmd:EX_Extent/gmd:geographicElement/` `gmd:EX_GeographicBoundingBox ->{{[` `northBoundingCoordinate]␣` `→[southBoundingCoordinate] [` `eastBoundingCoordinate]␣` `→[westBoundingCoordinate]}};` `northBoundingCoordinate =␣` `→gmd:northBoundLatitude/` `gco:Decimal/text(); southBoundingCoordinate =` `gmd:southBoundLatitude/gco:Decimal/text();` `eastBoundingCoordinate = gmd:eastBoundLongitude/` `gco:Decimal/text(); westBoundingCoordinate =` `gmd:westBoundLongitude/gco:Decimal/text()` Processor: CommonRootSolrField Configuration: *isotc.geohash7* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter
Index.geohash_8	False		`//gmd:identificationInfo/gmd:MD_` `→DataIdentification/` `gmd:extent/gmd:EX_Extent/gmd:geographicElement/` `gmd:EX_GeographicBoundingBox ->{{[` `northBoundingCoordinate]␣` `→[southBoundingCoordinate] [` `eastBoundingCoordinate]␣` `→[westBoundingCoordinate]}};` `northBoundingCoordinate =␣` `→gmd:northBoundLatitude/` `gco:Decimal/text(); southBoundingCoordinate =` `gmd:southBoundLatitude/gco:Decimal/text();` `eastBoundingCoordinate = gmd:eastBoundLongitude/` `gco:Decimal/text(); westBoundingCoordinate =` `gmd:westBoundLongitude/gco:Decimal/text()` Processor: CommonRootSolrField Configuration: *isotc.geohash8* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter

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Solr Field	Multi	Dedup	Source
Index.isService	False	False	```boolean(//srv:SV_ServiceIdentification or // gmd:distributionInfo/gmd:MD_Distribution)``` Processor: SolrField Configuration: *isotc.isService*
Index. serviceCoupling	False	False	```concat(substring('loose', 1 div␣ →number(boolean(// srv:SV_ServiceIdentification/srv:couplingType/ srv:SV_CouplingType/@codeListValue = 'loose'))), substring('tight', 1 div number(boolean(// srv:SV_ServiceIdentification/srv:couplingType/ srv:SV_CouplingType/@codeListValue = 'tight'))), substring('tight', 1 div number(boolean(// gmd:distributionInfo/gmd:MD_Distribution and␣ →not(// srv:SV_ServiceIdentification/srv:couplingType/ srv:SV_CouplingType/@codeListValue)))), substring('', 1 div number(boolean(not(// srv:SV_ServiceIdentification/srv:couplingType/ srv:SV_CouplingType/@codeListValue) and not(//gmd:distributionInfo/ gmd:MD_Distribution)))))``` Processor: SolrField Configuration: *isotc.serviceCoupling*
Index.serviceTitle	False	False	```(//srv:SV_ServiceIdentification/gmd:citation/ gmd:CI_Citation/gmd:title/gco:CharacterString |␣ →// gmd:distributionInfo/gmd:MD_Distribution/ gmd:distributor/gmd:MD_Distributor/ gmd:distributorTransferOptions/ gmd:MD_DigitalTransferOptions/gmd:onLine/ gmd:CI_OnlineResource/gmd:name/ →gco:CharacterString)/ text()``` Processor: SolrField Configuration: *isotc.serviceTitle*

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Solr Field	Multi	Dedup	Source
Index. serviceDescription	False	False	`(//srv:SV_ServiceIdentification/gmd:abstract/ gco:CharacterString | //gmd:distributionInfo/ gmd:MD_Distribution/gmd:distributor/ gmd:MD_Distributor/ ↪gmd:distributorTransferOptions/ gmd:MD_DigitalTransferOptions/gmd:onLine/ gmd:CI_OnlineResource/gmd:description/ gco:CharacterString)/text()` Processor: SolrField Configuration: *isotc.serviceDescription*
Index.serviceType	True	False	`//srv:SV_ServiceIdentification/srv:serviceType/ gco:LocalName/text()` Processor: SolrField Configuration: *isotc.serviceType* Converter: MemberNodeServiceRegistrationTypeConverter
Index. serviceEndpoint	True	False	`//srv:SV_ServiceIdentification/ ↪srv:containsOperations/ srv:SV_OperationMetadata/srv:connectPoint/ gmd:CI_OnlineResource/gmd:linkage/gmd:URL/text()` Processor: SolrField Configuration: *isotc.serviceEndpoint*
Index.serviceInput	True	False	`//srv:SV_ServiceIdentification/srv:operatesOn/ ↪@xlink:href` Processor: SolrField Configuration: *isotc.serviceInput*
Index.serviceOutput	True	False	`//srv:SV_ServiceIdentification/ ↪gmd:resourceFormat/ @xlink:href` Processor: SolrField Configuration: *isotc.serviceOutput*

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Solr Field	Multi	Dedup	Source

Index.serviceType	True	False	`//gmd:distributionInfo/gmd:MD_Distribution/`
			`↪gmd:distributor/`
			`gmd:MD_Distributor/`
			`↪gmd:distributorTransferOptions/`
			`gmd:MD_DigitalTransferOptions/gmd:onLine/`
			`gmd:CI_OnlineResource/gmd:protocol/`
			`gco:CharacterString/text()`
			
			Processor: SolrField
			
			Configuration: *isotc.distribServiceType*
			
			Converter: MemberNodeServiceRegistrationTypeConverter

Index. serviceEndpoint	True	False	`//gmd:distributionInfo/gmd:MD_Distribution/` `↪gmd:distributor/` `gmd:MD_Distributor/` `↪gmd:distributorTransferOptions/` `gmd:MD_DigitalTransferOptions/gmd:onLine/` `gmd:CI_OnlineResource/gmd:linkage/gmd:URL/` `↪text()	/` `/gmd:distributionInfo/gmd:MD_Distribution/` `gmd:transferOptions/gmd:MD_` `↪DigitalTransferOptions/` `gmd:onLine/gmd:CI_OnlineResource/gmd:linkage/` `gmd:URL/text()` Processor: SolrField Configuration: *isotc.distribServiceEndpoint*

Index.serviceInput	True	False	`//gmd:distributionInfo/gmd:MD_Distribution/`
			`↪gmd:distributor/`
			`gmd:MD_Distributor/`
			`↪gmd:distributorTransferOptions/`
			`@xlink:href`
			
			Processor: SolrField
			Configuration: *isotc.distribServiceInput*

Index.serviceOutput	True	False	`//gmd:distributionInfo/gmd:MD_Distribution/`
			`↪gmd:distributor/`
			`gmd:MD_Distributor/gmd:distributorFormat/`
			`gmd:MD_Format/gmd:version/gco:CharacterString/`
			`↪text()`
			
			Processor: SolrField
			Configuration: *isotc.distribServiceOutput*

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Solr Field	Multi	Dedup	Source
Index.fileID			Processor: ResolveSolrField Configuration: *isotc.fileID* Notes: SolrField which configures the resolve url for the document being processed. Converter:
Index.text	False	False	`//*/text()` Processor: FullTextSolrField Configuration: *isotc.fullText*

21.3 Bean Configurations

21.3.1 isotc.abstract

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.abstract" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="abstract"/>
        <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
↪DataIdentification/gmd:abstract/gco:CharacterString/text()"/>
    </bean>
```

21.3.2 isotc.author

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.author" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="author"/>
        <constructor-arg name="xpath" value="(//gmd:CI_ResponsibleParty/
↪gmd:individualName/gco:CharacterString/text() | //gmd:CI_ResponsibleParty/
↪gmd:individualName/gmx:Anchor/text())[1]"/>
    </bean>
```

21.3.3 isotc.authorSurName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.authorSurName" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="authorSurName"/>
        <constructor-arg name="xpath" value="(//gmd:CI_ResponsibleParty/
↪gmd:individualName/gco:CharacterString/text() | //gmd:CI_ResponsibleParty/
↪gmd:individualName/gmx:Anchor/text())[1]"/>
```

```
            <property name="multivalue" value="false"/>
    </bean>
```

21.3.4 isotc.authorSurNameSort

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.authorSurNameSort" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorSurNameSort"/>
            <constructor-arg name="xpath" value="(//gmd:CI_ResponsibleParty/
↪gmd:individualName/gco:CharacterString/text() | //gmd:CI_ResponsibleParty/
↪gmd:individualName/gmx:Anchor/text()))[1]"/>
            <property name="multivalue" value="false"/>
    </bean>
```

21.3.5 isotc.contactOrganization

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.contactOrganization" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="contactOrganization"/>
            <constructor-arg name="xpath" value="(//gmd:CI_ResponsibleParty/
↪gmd:organisationName/gco:CharacterString/text())[1]"/>
    </bean>
```

21.3.6 isotc.origin

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.origin" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="origin"/>
            <constructor-arg name="xpath" value="//gmd:CI_ResponsibleParty[gmd:role/
↪gmd:CI_RoleCode/text() = &quot;owner&quot; or gmd:role/gmd:CI_RoleCode/text() = &
↪quot;originator&quot; or gmd:role/gmd:CI_RoleCode/text() = &quot;
↪principalInvestigator&quot; or gmd:role/gmd:CI_RoleCode/text() = &quot;author&quot;
↪]/gmd:individualName/gco:CharacterString/text() | //gmd:CI_
↪ResponsibleParty[(gmd:role/gmd:CI_RoleCode/text() = &quot;owner&quot; or gmd:role/
↪gmd:CI_RoleCode/text() = &quot;originator&quot; or gmd:role/gmd:CI_RoleCode/text()␣
↪= &quot;principalInvestigator&quot; or gmd:role/gmd:CI_RoleCode/text() = &quot;
↪author&quot;) and (not(gmd:individualName) or gmd:individualName[@gco:nilReason = &
↪quot;missing&quot;])]/gmd:organisationName/gco:CharacterString/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

21.3.7 isotc.investigator

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.investigator" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="investigator"/>
            <constructor-arg name="xpath" value="//gmd:CI_ResponsibleParty/
↪gmd:individualName/gco:CharacterString/text() | //gmd:CI_ResponsibleParty/
↪gmd:individualName/gmx:Anchor/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

21.3.8 isotc.pubDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.pubDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="pubDate"/>
            <constructor-arg name="xpath" value="if (//gmd:identificationInfo/*/
↪gmd:citation/gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date[following-
↪sibling::gmd:dateType/gmd:CI_DateTypeCode/text() = 'publication']/gco:Date/text())␣
↪          then //gmd:identificationInfo/*/gmd:citation/gmd:CI_Citation/
↪gmd:date/gmd:CI_Date/gmd:date[following-sibling::gmd:dateType/gmd:CI_DateTypeCode/
↪text() = 'publication']/gco:Date/text()          else if (//gmd:identificationInfo/
↪*/gmd:citation/gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date[following-
↪sibling::gmd:dateType/gmd:CI_DateTypeCode/text() = 'publication']/gco:DateTime/
↪text())           then //gmd:identificationInfo/*/gmd:citation/gmd:CI_
↪Citation/gmd:date/gmd:CI_Date/gmd:date[following-sibling::gmd:dateType/gmd:CI_
↪DateTypeCode/text() = 'publication']/gco:DateTime/text()           else if (//
↪gmd:identificationInfo/*/gmd:citation/gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date/
↪gco:Date[1]/text())            then //gmd:identificationInfo/*/gmd:citation/
↪gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date/gco:Date[1]/text()         else if␣
↪(//gmd:identificationInfo/*/gmd:citation/gmd:CI_Citation/gmd:date/gmd:CI_Date/
↪gmd:date/gco:DateTime[1]/text())              then //gmd:identificationInfo/*/
↪gmd:citation/gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date/gco:DateTime[1]/text()␣
↪      else ()"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

21.3.9 isotc.beginDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.beginDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="beginDate"/>
            <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
↪DataIdentification/gmd:extent/gmd:EX_Extent/gmd:temporalElement/gmd:EX_
↪TemporalExtent/gmd:extent/*[local-name() = 'TimePeriod']/*[local-name() =
↪'beginPosition']/text()"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

21.3.10 isotc.endDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.endDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="endDate"/>
            <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
↪DataIdentification/gmd:extent/gmd:EX_Extent/gmd:temporalElement/gmd:EX_
↪TemporalExtent/gmd:extent/*[local-name() = 'TimePeriod']/*[local-name() =
↪'endPosition']/text()"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

21.3.11 isotc.title

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.title" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="title"/>
            <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
↪DataIdentification/gmd:citation/gmd:CI_Citation/gmd:title/gco:CharacterString/
↪text() | //gmd:identificationInfo/gmd:MD_DataIdentification/gmd:citation/gmd:CI_
↪Citation/gmd:title/gmx:Anchor/text()"/>
    </bean>
```

21.3.12 isotc.keywords

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.keywords" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="keywords"/>
            <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
↪DataIdentification/gmd:descriptiveKeywords/gmd:MD_Keywords/gmd:keyword/gmx:Anchor/
↪text() | //gmd:identificationInfo/gmd:MD_DataIdentification/gmd:descriptiveKeywords/
↪gmd:MD_Keywords/gmd:keyword/gco:CharacterString/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

21.3.13 isotc.eastBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.eastBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="eastBoundCoord"/>
            <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
↪DataIdentification/gmd:extent/gmd:EX_Extent/gmd:geographicElement/gmd:EX_
↪GeographicBoundingBox/gmd:eastBoundLongitude/gco:Decimal/text()"/>
    </bean>
```

21.3.14 isotc.westBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.westBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="westBoundCoord"/>
        <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
→DataIdentification/gmd:extent/gmd:EX_Extent/gmd:geographicElement/gmd:EX_
→GeographicBoundingBox/gmd:westBoundLongitude/gco:Decimal/text()"/>
    </bean>
```

21.3.15 isotc.southBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.southBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="southBoundCoord"/>
        <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
→DataIdentification/gmd:extent/gmd:EX_Extent/gmd:geographicElement/gmd:EX_
→GeographicBoundingBox/gmd:southBoundLatitude/gco:Decimal/text()"/>
    </bean>
```

21.3.16 isotc.northBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.northBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="northBoundCoord"/>
        <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
→DataIdentification/gmd:extent/gmd:EX_Extent/gmd:geographicElement/gmd:EX_
→GeographicBoundingBox/gmd:northBoundLatitude/gco:Decimal/text()"/>
    </bean>
```

21.3.17 isotc.geohash9

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.geohash9" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="isotc.geohashRoot">
        <constructor-arg name="name" value="geohash_9"/>
        <property name="converter" ref="geohashConverter_9"/>
    </bean>
```

21.3.18 isotc.geohash1

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.geohash1" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="isotc.geohashRoot">
        <constructor-arg name="name" value="geohash_1"/>
```

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```
            <property name="converter" ref="geohashConverter_1"/>
    </bean>
```

21.3.19 isotc.geohash2

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.geohash2" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="isotc.geohashRoot">
            <constructor-arg name="name" value="geohash_2"/>
            <property name="converter" ref="geohashConverter_2"/>
    </bean>
```

21.3.20 isotc.geohash3

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.geohash3" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="isotc.geohashRoot">
            <constructor-arg name="name" value="geohash_3"/>
            <property name="converter" ref="geohashConverter_3"/>
    </bean>
```

21.3.21 isotc.geohash4

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.geohash4" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="isotc.geohashRoot">
            <constructor-arg name="name" value="geohash_4"/>
            <property name="converter" ref="geohashConverter_4"/>
    </bean>
```

21.3.22 isotc.geohash5

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.geohash5" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="isotc.geohashRoot">
            <constructor-arg name="name" value="geohash_5"/>
            <property name="converter" ref="geohashConverter_5"/>
    </bean>
```

21.3.23 isotc.geohash6

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="isotc.geohash6" class="org.dataone.cn.indexer.parser.CommonRootSolrField"
→p:multivalue="true" p:root-ref="isotc.geohashRoot">
            <constructor-arg name="name" value="geohash_6"/>
            <property name="converter" ref="geohashConverter_6"/>
    </bean>
```

21.3.24 isotc.geohash7

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="isotc.geohash7" class="org.dataone.cn.indexer.parser.CommonRootSolrField"
→p:multivalue="true" p:root-ref="isotc.geohashRoot">
            <constructor-arg name="name" value="geohash_7"/>
            <property name="converter" ref="geohashConverter_7"/>
    </bean>
```

21.3.25 isotc.geohash8

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="isotc.geohash8" class="org.dataone.cn.indexer.parser.CommonRootSolrField"
→p:multivalue="true" p:root-ref="isotc.geohashRoot">
            <constructor-arg name="name" value="geohash_8"/>
            <property name="converter" ref="geohashConverter_8"/>
    </bean>
```

21.3.26 isotc.isService

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="isotc.isService" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="isService"/>
            <constructor-arg name="xpath" value="boolean(//srv:SV_
→ServiceIdentification or //gmd:distributionInfo/gmd:MD_Distribution)"/>
    </bean>
```

21.3.27 isotc.serviceCoupling

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="isotc.serviceCoupling" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceCoupling"/>
            <constructor-arg name="xpath" value="concat( substring('loose', 1 div
→number(boolean( //srv:SV_ServiceIdentification/srv:couplingType/srv:SV_CouplingType/
→@codeListValue = 'loose'))),        substring('tight', 1 div number(boolean( //
→srv:SV_ServiceIdentification/srv:couplingType/srv:SV_CouplingType/@codeListValue =
→'tight'))),        substring('tight', 1 div number(boolean( //gmd:distributionInfo/
→gmd:MD_Distribution and not(//srv:SV_ServiceIdentification/srv:couplingType/srv:SV_
→CouplingType/@codeListValue)))),        substring('',  1 div number(boolean( not(
→//srv:SV_ServiceIdentification/srv:couplingType/srv:SV_CouplingType/@codeListValue)
            and not(  //gmd:distributionInfo/gmd:MD_Distribution)))))"/>
```

```
        </bean>
```

21.3.28 isotc.serviceTitle

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.serviceTitle" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="serviceTitle"/>
        <constructor-arg name="xpath" value="(//srv:SV_ServiceIdentification/
→gmd:citation/gmd:CI_Citation/gmd:title/gco:CharacterString | //gmd:distributionInfo/
→gmd:MD_Distribution/gmd:distributor/gmd:MD_Distributor/
→gmd:distributorTransferOptions/gmd:MD_DigitalTransferOptions/gmd:onLine/gmd:CI_
→OnlineResource/gmd:name/gco:CharacterString)/text()"/>
        <property name="combineNodes" value="true"/>
        <property name="combineDelimiter" value=":"/>
    </bean>
```

21.3.29 isotc.serviceDescription

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.serviceDescription" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="serviceDescription"/>
        <constructor-arg name="xpath" value="(//srv:SV_ServiceIdentification/
→gmd:abstract/gco:CharacterString | //gmd:distributionInfo/gmd:MD_Distribution/
→gmd:distributor/gmd:MD_Distributor/gmd:distributorTransferOptions/gmd:MD_
→DigitalTransferOptions/gmd:onLine/gmd:CI_OnlineResource/gmd:description/
→gco:CharacterString)/text()"/>
        <property name="combineNodes" value="true"/>
        <property name="combineDelimiter" value=":"/>
    </bean>
```

21.3.30 isotc.serviceType

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.serviceType" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="serviceType"/>
        <constructor-arg name="xpath" value="//srv:SV_ServiceIdentification/
→srv:serviceType/gco:LocalName/text()"/>
        <property name="multivalue" value="true"/>
        <property name="converter" ref="serviceTypesConverter"/>
    </bean>
```

21.3.31 isotc.serviceEndpoint

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.serviceEndpoint" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceEndpoint"/>
            <constructor-arg name="xpath" value="//srv:SV_ServiceIdentification/
→srv:containsOperations/srv:SV_OperationMetadata/srv:connectPoint/gmd:CI_
→OnlineResource/gmd:linkage/gmd:URL/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

21.3.32 isotc.serviceInput

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.serviceInput" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceInput"/>
            <constructor-arg name="xpath" value="//srv:SV_ServiceIdentification/
→srv:operatesOn/@xlink:href"/>
            <property name="multivalue" value="true"/>
    </bean>
```

21.3.33 isotc.serviceOutput

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.serviceOutput" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceOutput"/>
            <constructor-arg name="xpath" value="//srv:SV_ServiceIdentification/
→gmd:resourceFormat/@xlink:href"/>
            <property name="multivalue" value="true"/>
    </bean>
```

21.3.34 isotc.distribServiceType

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.distribServiceType" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceType"/>
            <constructor-arg name="xpath" value="//gmd:distributionInfo/gmd:MD_
→Distribution/gmd:distributor/gmd:MD_Distributor/gmd:distributorTransferOptions/
→gmd:MD_DigitalTransferOptions/gmd:onLine/gmd:CI_OnlineResource/gmd:protocol/
→gco:CharacterString/text()"/>
            <property name="multivalue" value="true"/>
            <property name="converter" ref="serviceTypesConverter"/>
    </bean>
```

21.3.35 isotc.distribServiceEndpoint

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.distribServiceEndpoint" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceEndpoint"/>
            <constructor-arg name="xpath" value="//gmd:distributionInfo/gmd:MD_
→Distribution/gmd:distributor/gmd:MD_Distributor/gmd:distributorTransferOptions/
→gmd:MD_DigitalTransferOptions/gmd:onLine/gmd:CI_OnlineResource/gmd:linkage/gmd:URL/
→text() | //gmd:distributionInfo/gmd:MD_Distribution/gmd:transferOptions/gmd:MD_
→DigitalTransferOptions/gmd:onLine/gmd:CI_OnlineResource/gmd:linkage/gmd:URL/text()"/
→>
            <property name="multivalue" value="true"/>
    </bean>
```

21.3.36 isotc.distribServiceInput

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.distribServiceInput" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceInput"/>
            <constructor-arg name="xpath" value="//gmd:distributionInfo/gmd:MD_
→Distribution/gmd:distributor/gmd:MD_Distributor/gmd:distributorTransferOptions/
→@xlink:href"/>
            <property name="multivalue" value="true"/>
    </bean>
```

21.3.37 isotc.distribServiceOutput

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.distribServiceOutput" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceOutput"/>
            <constructor-arg name="xpath" value="//gmd:distributionInfo/gmd:MD_
→Distribution/gmd:distributor/gmd:MD_Distributor/gmd:distributorFormat/gmd:MD_Format/
→gmd:version/gco:CharacterString/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

21.3.38 isotc.fileID

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.fileID" class="org.dataone.cn.indexer.parser.ResolveSolrField">
            <constructor-arg name="name" value="fileID"/>
    </bean>
```

21.3.39 isotc.fullText

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.fullText" class="org.dataone.cn.indexer.parser.FullTextSolrField">
            <constructor-arg name="name" value="text"/>
            <constructor-arg name="xpath" value="//*/text()"/>
            <property name="combineNodes" value="true"/>
    </bean>
```

ISO TC-211, PANGAEA Variant

Describes parser configuration for: isotc211PangaeaSubprocessor

22.1 Format IDs Processed

This parser processes the following DataONE format IDs:

- PANGAEA Variant Geographic MetaData (GMD) Extensible Markup Language
  formatId: `http://www.isotc211.org/2005/gmd-pangaea`

A full list of DataONE format IDs can be found at https://cn.dataone.org/cn/v2/formats/

22.2 Fields

The following fields in the solr index are populated from values retrieved from this type of metadata document. Note that these are in addition to the information extracted from *System Metadata Parser*.

Solr Field	Multi	Dedupe	Source

Index.abstract	False	False	`//gmd:identificationInfo/gmd:MD_`
			`↪DataIdentification/`
			`gmd:abstract/gco:CharacterString/text()`
			
			Processor: SolrField
			Configuration: *isotc.abstract*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.author	False	False	`(//gmd:CI_ResponsibleParty/gmd:individualName/ gco:CharacterString/text()	// gmd:CI_ResponsibleParty/gmd:individualName/ gmx:Anchor/text())[1]` Processor: SolrField Configuration: *isotc.author*
Index.authorSurName	False	False	`(//gmd:CI_ResponsibleParty/gmd:individualName/ gco:CharacterString/text()	// gmd:CI_ResponsibleParty/gmd:individualName/ gmx:Anchor/text())[1]` Processor: SolrField Configuration: *isotc.authorSurName*
Index. authorSurNameSort	False	False	`(//gmd:CI_ResponsibleParty/gmd:individualName/ gco:CharacterString/text()	// gmd:CI_ResponsibleParty/gmd:individualName/ gmx:Anchor/text())[1]` Processor: SolrField Configuration: *isotc.authorSurNameSort*
Index. contactOrganization	False	False	`(//gmd:CI_ResponsibleParty/gmd:organisationName/ gco:CharacterString/text())[1]` Processor: SolrField Configuration: *isotc.contactOrganization*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.origin	True	True	

```
//gmd:CI_ResponsibleParty[gmd:role/gmd:CI_
↪RoleCode/text() =
"owner" or gmd:role/gmd:CI_RoleCode/text() =
"originator" or gmd:role/gmd:CI_RoleCode/text()␣
↪=
"principalInvestigator" or gmd:role/gmd:CI_
↪RoleCode/
text() = "author"]/gmd:individualName/
gco:CharacterString/text() | //
gmd:CI_ResponsibleParty[(gmd:role/gmd:CI_
↪RoleCode/
text() = "owner" or gmd:role/gmd:CI_RoleCode/
↪text()
= "originator" or gmd:role/gmd:CI_RoleCode/
↪text() =
"principalInvestigator" or gmd:role/gmd:CI_
↪RoleCode/
text() = "author") and (not(gmd:individualName)␣
↪or
gmd:individualName[@gco:nilReason = "missing
↪"])]/
gmd:organisationName/gco:CharacterString/text()
```

Processor: SolrField

Configuration: *isotc.origin*

| *Index.investigator* | True | True | |

```
//gmd:CI_ResponsibleParty/gmd:individualName/
gco:CharacterString/text() | //
gmd:CI_ResponsibleParty/gmd:individualName/
gmx:Anchor/text()
```

Processor: SolrField

Configuration: *isotc.investigator*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.pubDate	False	False	

```
if (//gmd:identificationInfo/*/gmd:citation/
 ↪gmd:CI_Citation/
gmd:date/gmd:CI_Date/gmd:date[
following-sibling::gmd:dateType/gmd:CI_
 ↪DateTypeCode/
text() = 'publication']/gco:Date/text())
      then //gmd:identificationInfo/*/
 ↪gmd:citation/
gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date[
following-sibling::gmd:dateType/gmd:CI_
 ↪DateTypeCode/
text() = 'publication']/gco:Date/text()
else if (//gmd:identificationInfo/*/
 ↪gmd:citation/
gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date[
following-sibling::gmd:dateType/gmd:CI_
 ↪DateTypeCode/
text() = 'publication']/gco:DateTime/text())
        then //gmd:identificationInfo/*/
gmd:citation/gmd:CI_Citation/gmd:date/gmd:CI_
 ↪Date/
gmd:date[following-sibling::gmd:dateType/
gmd:CI_DateTypeCode/text() = 'publication']/
gco:DateTime/text()         else if (//
gmd:identificationInfo/*/gmd:citation/
gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date/
gco:Date[1]/text())                 then //
gmd:identificationInfo/*/gmd:citation/
gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date/
gco:Date[1]/text()          else if (//
gmd:identificationInfo/*/gmd:citation/
gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date/
gco:DateTime[1]/text())              then //
gmd:identificationInfo/*/gmd:citation/
gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date/
gco:DateTime[1]/text()         else ()
```

Processor: SolrField

Configuration: *isotc.pubDate*

Converter: SolrDateConverter

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.beginDate	False	False	`//gmd:identificationInfo/gmd:MD_`
			`↪DataIdentification/`
			`gmd:extent/gmd:EX_Extent/gmd:temporalElement/`
			`gmd:EX_TemporalExtent/gmd:extent/*[local-name()␣`
			`↪=`
			`'TimePeriod']/*[local-name() = 'beginPosition']/`
			`text()`
			
			Processor: SolrField
			Configuration: *isotc.beginDate*
			
			Converter: SolrDateConverter

Index.endDate	False	False	`//gmd:identificationInfo/gmd:MD_`
			`↪DataIdentification/`
			`gmd:extent/gmd:EX_Extent/gmd:temporalElement/`
			`gmd:EX_TemporalExtent/gmd:extent/*[local-name()␣`
			`↪=`
			`'TimePeriod']/*[local-name() = 'endPosition']/`
			`↪text()`
			
			Processor: SolrField
			Configuration: *isotc.endDate*
			
			Converter: SolrDateConverter

Index.title	False	False	`//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:citation/gmd:CI_Citation/gmd:title/` `gco:CharacterString/text()	//` `gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:citation/gmd:CI_Citation/gmd:title/` `↪gmx:Anchor/` `text()` Processor: SolrField Configuration: *isotc.title*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.keywords	True	False	`//gmd:identificationInfo/gmd:MD_`
			`↪DataIdentification/`
			`gmd:descriptiveKeywords/gmd:MD_Keywords/`
			`↪gmd:keyword/`
			`gmx:Anchor/text() | //gmd:identificationInfo/`
			`gmd:MD_DataIdentification/`
			`↪gmd:descriptiveKeywords/`
			`gmd:MD_Keywords/gmd:keyword/gco:CharacterString/`
			`text()`
			
			Processor: SolrField
			
			Configuration: *isotc.keywords*

Index.eastBoundCoord	False	False	`//gmd:identificationInfo/gmd:MD_`
			`↪DataIdentification/`
			`gmd:extent/gmd:EX_Extent/gmd:geographicElement/`
			`gmd:EX_GeographicBoundingBox/`
			`↪gmd:eastBoundLongitude/`
			`gco:Decimal/text()`
			
			Processor: SolrField
			
			Configuration: *isotc.eastBoundCoord*

Index.westBoundCoord	False	False	`//gmd:identificationInfo/gmd:MD_`
			`↪DataIdentification/`
			`gmd:extent/gmd:EX_Extent/gmd:geographicElement/`
			`gmd:EX_GeographicBoundingBox/`
			`↪gmd:westBoundLongitude/`
			`gco:Decimal/text()`
			
			Processor: SolrField
			
			Configuration: *isotc.westBoundCoord*

Index.southBoundCoord	False	False	`//gmd:identificationInfo/gmd:MD_`
			`↪DataIdentification/`
			`gmd:extent/gmd:EX_Extent/gmd:geographicElement/`
			`gmd:EX_GeographicBoundingBox/`
			`↪gmd:southBoundLatitude/`
			`gco:Decimal/text()`
			
			Processor: SolrField
			
			Configuration: *isotc.southBoundCoord*

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index. northBoundCoord	False	False	`//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:extent/gmd:EX_Extent/gmd:geographicElement/` `gmd:EX_GeographicBoundingBox/` `↪gmd:northBoundLatitude/` `gco:Decimal/text()` Processor: SolrField Configuration: *isotc.northBoundCoord*
Index.geohash_9	False		`//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:extent/gmd:EX_Extent/gmd:geographicElement/` `gmd:EX_GeographicBoundingBox ->{{[` `northBoundingCoordinate]␣` `↪[southBoundingCoordinate] [` `eastBoundingCoordinate]␣` `↪[westBoundingCoordinate]}};` `northBoundingCoordinate =␣` `↪gmd:northBoundLatitude/` `gco:Decimal/text(); southBoundingCoordinate =` `gmd:southBoundLatitude/gco:Decimal/text();` `eastBoundingCoordinate = gmd:eastBoundLongitude/` `gco:Decimal/text(); westBoundingCoordinate =` `gmd:westBoundLongitude/gco:Decimal/text()` Processor: CommonRootSolrField Configuration: *isotc.geohash9* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter

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Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.geohash_1	False		`//gmd:identificationInfo/gmd:MD_`
			`↪DataIdentification/`
			`gmd:extent/gmd:EX_Extent/gmd:geographicElement/`
			`gmd:EX_GeographicBoundingBox ->{{[`
			`northBoundingCoordinate]␣`
			`↪[southBoundingCoordinate] [`
			`eastBoundingCoordinate]␣`
			`↪[westBoundingCoordinate]}};`
			`northBoundingCoordinate =␣`
			`↪gmd:northBoundLatitude/`
			`gco:Decimal/text(); southBoundingCoordinate =`
			`gmd:southBoundLatitude/gco:Decimal/text();`
			`eastBoundingCoordinate = gmd:eastBoundLongitude/`
			`gco:Decimal/text(); westBoundingCoordinate =`
			`gmd:westBoundLongitude/gco:Decimal/text()`
			
			Processor: CommonRootSolrField
			Configuration: *isotc.geohash1*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

Index.geohash_2	False		`//gmd:identificationInfo/gmd:MD_`
			`↪DataIdentification/`
			`gmd:extent/gmd:EX_Extent/gmd:geographicElement/`
			`gmd:EX_GeographicBoundingBox ->{{[`
			`northBoundingCoordinate]␣`
			`↪[southBoundingCoordinate] [`
			`eastBoundingCoordinate]␣`
			`↪[westBoundingCoordinate]}};`
			`northBoundingCoordinate =␣`
			`↪gmd:northBoundLatitude/`
			`gco:Decimal/text(); southBoundingCoordinate =`
			`gmd:southBoundLatitude/gco:Decimal/text();`
			`eastBoundingCoordinate = gmd:eastBoundLongitude/`
			`gco:Decimal/text(); westBoundingCoordinate =`
			`gmd:westBoundLongitude/gco:Decimal/text()`
			
			Processor: CommonRootSolrField
			Configuration: *isotc.geohash2*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

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Solr Field	Multi	Dedupe	Source
Index.geohash_3	False		`//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:extent/gmd:EX_Extent/gmd:geographicElement/` `gmd:EX_GeographicBoundingBox ->{{[` `northBoundingCoordinate]␣` `↪[southBoundingCoordinate] [` `eastBoundingCoordinate]␣` `↪[westBoundingCoordinate]}};` `northBoundingCoordinate =␣` `↪gmd:northBoundLatitude/` `gco:Decimal/text(); southBoundingCoordinate =` `gmd:southBoundLatitude/gco:Decimal/text();` `eastBoundingCoordinate = gmd:eastBoundLongitude/` `gco:Decimal/text(); westBoundingCoordinate =` `gmd:westBoundLongitude/gco:Decimal/text()` Processor: CommonRootSolrField Configuration: *isotc.geohash3* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter
Index.geohash_4	False		`//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:extent/gmd:EX_Extent/gmd:geographicElement/` `gmd:EX_GeographicBoundingBox ->{{[` `northBoundingCoordinate]␣` `↪[southBoundingCoordinate] [` `eastBoundingCoordinate]␣` `↪[westBoundingCoordinate]}};` `northBoundingCoordinate =␣` `↪gmd:northBoundLatitude/` `gco:Decimal/text(); southBoundingCoordinate =` `gmd:southBoundLatitude/gco:Decimal/text();` `eastBoundingCoordinate = gmd:eastBoundLongitude/` `gco:Decimal/text(); westBoundingCoordinate =` `gmd:westBoundLongitude/gco:Decimal/text()` Processor: CommonRootSolrField Configuration: *isotc.geohash4* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter

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Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.geohash_5	False		`//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:extent/gmd:EX_Extent/gmd:geographicElement/` `gmd:EX_GeographicBoundingBox ->{{[` `northBoundingCoordinate]␣` `↪[southBoundingCoordinate] [` `eastBoundingCoordinate]␣` `↪[westBoundingCoordinate]}};` `northBoundingCoordinate =␣` `↪gmd:northBoundLatitude/` `gco:Decimal/text(); southBoundingCoordinate =` `gmd:southBoundLatitude/gco:Decimal/text();` `eastBoundingCoordinate = gmd:eastBoundLongitude/` `gco:Decimal/text(); westBoundingCoordinate =` `gmd:westBoundLongitude/gco:Decimal/text()` Processor: CommonRootSolrField Configuration: *isotc.geohash5* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter
Index.geohash_6	False		`//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:extent/gmd:EX_Extent/gmd:geographicElement/` `gmd:EX_GeographicBoundingBox ->{{[` `northBoundingCoordinate]␣` `↪[southBoundingCoordinate] [` `eastBoundingCoordinate]␣` `↪[westBoundingCoordinate]}};` `northBoundingCoordinate =␣` `↪gmd:northBoundLatitude/` `gco:Decimal/text(); southBoundingCoordinate =` `gmd:southBoundLatitude/gco:Decimal/text();` `eastBoundingCoordinate = gmd:eastBoundLongitude/` `gco:Decimal/text(); westBoundingCoordinate =` `gmd:westBoundLongitude/gco:Decimal/text()` Processor: CommonRootSolrField Configuration: *isotc.geohash6* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter

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Solr Field	Multi	Dedup	Source
Index.geohash_7	False		`//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:extent/gmd:EX_Extent/gmd:geographicElement/` `gmd:EX_GeographicBoundingBox ->{{[` `northBoundingCoordinate]␣` `↪[southBoundingCoordinate] [` `eastBoundingCoordinate]␣` `↪[westBoundingCoordinate]}};` `northBoundingCoordinate =␣` `↪gmd:northBoundLatitude/` `gco:Decimal/text(); southBoundingCoordinate =` `gmd:southBoundLatitude/gco:Decimal/text();` `eastBoundingCoordinate = gmd:eastBoundLongitude/` `gco:Decimal/text(); westBoundingCoordinate =` `gmd:westBoundLongitude/gco:Decimal/text()` Processor: CommonRootSolrField Configuration: *isotc.geohash7* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter
Index.geohash_8	False		`//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:extent/gmd:EX_Extent/gmd:geographicElement/` `gmd:EX_GeographicBoundingBox ->{{[` `northBoundingCoordinate]␣` `↪[southBoundingCoordinate] [` `eastBoundingCoordinate]␣` `↪[westBoundingCoordinate]}};` `northBoundingCoordinate =␣` `↪gmd:northBoundLatitude/` `gco:Decimal/text(); southBoundingCoordinate =` `gmd:southBoundLatitude/gco:Decimal/text();` `eastBoundingCoordinate = gmd:eastBoundLongitude/` `gco:Decimal/text(); westBoundingCoordinate =` `gmd:westBoundLongitude/gco:Decimal/text()` Processor: CommonRootSolrField Configuration: *isotc.geohash8* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter

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Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.isService	False	False	<pre>boolean(//srv:SV_ServiceIdentification or //
			gmd:distributionInfo/gmd:MD_Distribution)</pre>
			Processor: SolrField
			Configuration: *isotc.isService*

Index.serviceCoupling	False	False	<pre>concat(substring('loose', 1 div␣
			↪number(boolean(//
			srv:SV_ServiceIdentification/srv:couplingType/
			srv:SV_CouplingType/@codeListValue = 'loose'))),
			    substring('tight', 1 div number(boolean(//
			srv:SV_ServiceIdentification/srv:couplingType/
			srv:SV_CouplingType/@codeListValue = 'tight'))),
			    substring('tight', 1 div number(boolean(//
			gmd:distributionInfo/gmd:MD_Distribution and␣
			↪not(//
			srv:SV_ServiceIdentification/srv:couplingType/
			srv:SV_CouplingType/@codeListValue)))),
			substring('', 1 div number(boolean(not(//
			srv:SV_ServiceIdentification/srv:couplingType/
			srv:SV_CouplingType/@codeListValue)
			 and not(//gmd:distributionInfo/
			gmd:MD_Distribution)))))</pre>
			Processor: SolrField
			Configuration: *isotc.serviceCoupling*

Index.serviceTitle	False	False	<pre>(//srv:SV_ServiceIdentification/gmd:citation/
			gmd:CI_Citation/gmd:title/gco:CharacterString |␣
			↪//
			gmd:distributionInfo/gmd:MD_Distribution/
			gmd:distributor/gmd:MD_Distributor/
			gmd:distributorTransferOptions/
			gmd:MD_DigitalTransferOptions/gmd:onLine/
			gmd:CI_OnlineResource/gmd:name/
			↪gco:CharacterString)/
			text()</pre>
			Processor: SolrField
			Configuration: *isotc.serviceTitle*

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Solr Field	Multi	Dedupe	Source
Index. serviceDescription	False	False	`(//srv:SV_ServiceIdentification/gmd:abstract/ gco:CharacterString | //gmd:distributionInfo/ gmd:MD_Distribution/gmd:distributor/ gmd:MD_Distributor/ ↪gmd:distributorTransferOptions/ gmd:MD_DigitalTransferOptions/gmd:onLine/ gmd:CI_OnlineResource/gmd:description/ gco:CharacterString)/text()` Processor: SolrField Configuration: *isotc.serviceDescription*
Index.serviceType	True	False	`//srv:SV_ServiceIdentification/srv:serviceType/ gco:LocalName/text()` Processor: SolrField Configuration: *isotc.serviceType* Converter: MemberNodeServiceRegistrationTypeConverter
Index. serviceEndpoint	True	False	`//srv:SV_ServiceIdentification/ ↪srv:containsOperations/ srv:SV_OperationMetadata/srv:connectPoint/ gmd:CI_OnlineResource/gmd:linkage/gmd:URL/text()` Processor: SolrField Configuration: *isotc.serviceEndpoint*
Index.serviceInput	True	False	`//srv:SV_ServiceIdentification/srv:operatesOn/ ↪@xlink:href` Processor: SolrField Configuration: *isotc.serviceInput*
Index.serviceOutput	True	False	`//srv:SV_ServiceIdentification/ ↪gmd:resourceFormat/ @xlink:href` Processor: SolrField Configuration: *isotc.serviceOutput*

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Solr Field	Multi	Dedup	Source
Index.serviceType	True	False	`//gmd:distributionInfo/gmd:MD_Distribution/` `↪gmd:distributor/` `gmd:MD_Distributor/` `↪gmd:distributorTransferOptions/` `gmd:MD_DigitalTransferOptions/gmd:onLine/` `gmd:CI_OnlineResource/gmd:protocol/` `gco:CharacterString/text()` Processor: SolrField Configuration: *isotc.distribServiceType* Converter: MemberNodeServiceRegistrationTypeConverter
Index.serviceEndpoint	True	False	`//gmd:distributionInfo/gmd:MD_Distribution/` `↪gmd:distributor/` `gmd:MD_Distributor/` `↪gmd:distributorTransferOptions/` `gmd:MD_DigitalTransferOptions/gmd:onLine/` `gmd:CI_OnlineResource/gmd:linkage/gmd:URL/` `↪text()	/` `/gmd:distributionInfo/gmd:MD_Distribution/` `gmd:transferOptions/gmd:MD_` `↪DigitalTransferOptions/` `gmd:onLine/gmd:CI_OnlineResource/gmd:linkage/` `gmd:URL/text()` Processor: SolrField Configuration: *isotc.distribServiceEndpoint*
Index.serviceInput	True	False	`//gmd:distributionInfo/gmd:MD_Distribution/` `↪gmd:distributor/` `gmd:MD_Distributor/` `↪gmd:distributorTransferOptions/` `@xlink:href` Processor: SolrField Configuration: *isotc.distribServiceInput*
Index.serviceOutput	True	False	`//gmd:distributionInfo/gmd:MD_Distribution/` `↪gmd:distributor/` `gmd:MD_Distributor/gmd:distributorFormat/` `gmd:MD_Format/gmd:version/gco:CharacterString/` `↪text()` Processor: SolrField Configuration: *isotc.distribServiceOutput*

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Solr Field	Multi	Dedup	Source
Index.fileID			Processor: ResolveSolrField Configuration: *isotc.fileID* Notes: SolrField which configures the resolve url for the document being processed. Converter:
Index.text	False	False	`//*/text()` Processor: FullTextSolrField Configuration: *isotc.fullText*

22.3 Bean Configurations

22.3.1 isotc.abstract

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.abstract" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="abstract"/>
        <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
↪DataIdentification/gmd:abstract/gco:CharacterString/text()"/>
    </bean>
```

22.3.2 isotc.author

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.author" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="author"/>
        <constructor-arg name="xpath" value="(//gmd:CI_ResponsibleParty/
↪gmd:individualName/gco:CharacterString/text() | //gmd:CI_ResponsibleParty/
↪gmd:individualName/gmx:Anchor/text())[1]"/>
    </bean>
```

22.3.3 isotc.authorSurName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.authorSurName" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="authorSurName"/>
        <constructor-arg name="xpath" value="(//gmd:CI_ResponsibleParty/
↪gmd:individualName/gco:CharacterString/text() | //gmd:CI_ResponsibleParty/
↪gmd:individualName/gmx:Anchor/text())[1]"/>
```

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```
            <property name="multivalue" value="false"/>
    </bean>
```

22.3.4 isotc.authorSurNameSort

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="isotc.authorSurNameSort" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorSurNameSort"/>
            <constructor-arg name="xpath" value="(//gmd:CI_ResponsibleParty/
→gmd:individualName/gco:CharacterString/text() | //gmd:CI_ResponsibleParty/
→gmd:individualName/gmx:Anchor/text())[1]"/>
            <property name="multivalue" value="false"/>
    </bean>
```

22.3.5 isotc.contactOrganization

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="isotc.contactOrganization" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="contactOrganization"/>
            <constructor-arg name="xpath" value="(//gmd:CI_ResponsibleParty/
→gmd:organisationName/gco:CharacterString/text())[1]"/>
    </bean>
```

22.3.6 isotc.origin

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="isotc.origin" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="origin"/>
            <constructor-arg name="xpath" value="//gmd:CI_ResponsibleParty[gmd:role/
→gmd:CI_RoleCode/text() = &quot;owner&quot; or gmd:role/gmd:CI_RoleCode/text() = &
→quot;originator&quot; or gmd:role/gmd:CI_RoleCode/text() = &quot;
→principalInvestigator&quot; or gmd:role/gmd:CI_RoleCode/text() = &quot;author&quot;
→]/gmd:individualName/gco:CharacterString/text() | //gmd:CI_
→ResponsibleParty[(gmd:role/gmd:CI_RoleCode/text() = &quot;owner&quot; or gmd:role/
→gmd:CI_RoleCode/text() = &quot;originator&quot; or gmd:role/gmd:CI_RoleCode/text()
→= &quot;principalInvestigator&quot; or gmd:role/gmd:CI_RoleCode/text() = &quot;
→author&quot;) and (not(gmd:individualName) or gmd:individualName[@gco:nilReason = &
→quot;missing&quot;])]/gmd:organisationName/gco:CharacterString/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

22.3.7 isotc.investigator

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.investigator" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="investigator"/>
            <constructor-arg name="xpath" value="//gmd:CI_ResponsibleParty/
→gmd:individualName/gco:CharacterString/text() | //gmd:CI_ResponsibleParty/
→gmd:individualName/gmx:Anchor/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

22.3.8 isotc.pubDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.pubDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="pubDate"/>
            <constructor-arg name="xpath" value="if (//gmd:identificationInfo/*/
→gmd:citation/gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date[following-
→sibling::gmd:dateType/gmd:CI_DateTypeCode/text() = 'publication']/gco:Date/text()) ␣
→           then //gmd:identificationInfo/*/gmd:citation/gmd:CI_Citation/
→gmd:date/gmd:CI_Date/gmd:date[following-sibling::gmd:dateType/gmd:CI_DateTypeCode/
→text() = 'publication']/gco:Date/text()         else if (//gmd:identificationInfo/
→*/gmd:citation/gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date[following-
→sibling::gmd:dateType/gmd:CI_DateTypeCode/text() = 'publication']/gco:DateTime/
→text())            then //gmd:identificationInfo/*/gmd:citation/gmd:CI_
→Citation/gmd:date/gmd:CI_Date/gmd:date[following-sibling::gmd:dateType/gmd:CI_
→DateTypeCode/text() = 'publication']/gco:DateTime/text()          else if (//
→gmd:identificationInfo/*/gmd:citation/gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date/
→gco:Date[1]/text())              then //gmd:identificationInfo/*/gmd:citation/
→gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date/gco:Date[1]/text()         else if␣
→(//gmd:identificationInfo/*/gmd:citation/gmd:CI_Citation/gmd:date/gmd:CI_Date/
→gmd:date/gco:DateTime[1]/text())            then //gmd:identificationInfo/*/
→gmd:citation/gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date/gco:DateTime[1]/text() ␣
→       else ()"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

22.3.9 isotc.beginDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.beginDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="beginDate"/>
            <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
→DataIdentification/gmd:extent/gmd:EX_Extent/gmd:temporalElement/gmd:EX_
→TemporalExtent/gmd:extent/*[local-name() = 'TimePeriod']/*[local-name() =
→'beginPosition']/text()"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

22.3.10 isotc.endDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.endDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="endDate"/>
            <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
→DataIdentification/gmd:extent/gmd:EX_Extent/gmd:temporalElement/gmd:EX_
→TemporalExtent/gmd:extent/*[local-name() = 'TimePeriod']/*[local-name() =
→'endPosition']/text()"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

22.3.11 isotc.title

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.title" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="title"/>
            <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
→DataIdentification/gmd:citation/gmd:CI_Citation/gmd:title/gco:CharacterString/
→text() | //gmd:identificationInfo/gmd:MD_DataIdentification/gmd:citation/gmd:CI_
→Citation/gmd:title/gmx:Anchor/text()"/>
    </bean>
```

22.3.12 isotc.keywords

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.keywords" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="keywords"/>
            <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
→DataIdentification/gmd:descriptiveKeywords/gmd:MD_Keywords/gmd:keyword/gmx:Anchor/
→text() | //gmd:identificationInfo/gmd:MD_DataIdentification/gmd:descriptiveKeywords/
→gmd:MD_Keywords/gmd:keyword/gco:CharacterString/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

22.3.13 isotc.eastBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.eastBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="eastBoundCoord"/>
            <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
→DataIdentification/gmd:extent/gmd:EX_Extent/gmd:geographicElement/gmd:EX_
→GeographicBoundingBox/gmd:eastBoundLongitude/gco:Decimal/text()"/>
    </bean>
```

22.3.14 isotc.westBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.westBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="westBoundCoord"/>
        <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
↪DataIdentification/gmd:extent/gmd:EX_Extent/gmd:geographicElement/gmd:EX_
↪GeographicBoundingBox/gmd:westBoundLongitude/gco:Decimal/text()"/>
    </bean>
```

22.3.15 isotc.southBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.southBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="southBoundCoord"/>
        <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
↪DataIdentification/gmd:extent/gmd:EX_Extent/gmd:geographicElement/gmd:EX_
↪GeographicBoundingBox/gmd:southBoundLatitude/gco:Decimal/text()"/>
    </bean>
```

22.3.16 isotc.northBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.northBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="northBoundCoord"/>
        <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
↪DataIdentification/gmd:extent/gmd:EX_Extent/gmd:geographicElement/gmd:EX_
↪GeographicBoundingBox/gmd:northBoundLatitude/gco:Decimal/text()"/>
    </bean>
```

22.3.17 isotc.geohash9

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.geohash9" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="isotc.geohashRoot">
        <constructor-arg name="name" value="geohash_9"/>
        <property name="converter" ref="geohashConverter_9"/>
    </bean>
```

22.3.18 isotc.geohash1

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.geohash1" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="isotc.geohashRoot">
        <constructor-arg name="name" value="geohash_1"/>
```

(continues on next page)

```
            <property name="converter" ref="geohashConverter_1"/>
    </bean>
```

22.3.19 isotc.geohash2

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.geohash2" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="isotc.geohashRoot">
            <constructor-arg name="name" value="geohash_2"/>
            <property name="converter" ref="geohashConverter_2"/>
    </bean>
```

22.3.20 isotc.geohash3

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.geohash3" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="isotc.geohashRoot">
            <constructor-arg name="name" value="geohash_3"/>
            <property name="converter" ref="geohashConverter_3"/>
    </bean>
```

22.3.21 isotc.geohash4

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.geohash4" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="isotc.geohashRoot">
            <constructor-arg name="name" value="geohash_4"/>
            <property name="converter" ref="geohashConverter_4"/>
    </bean>
```

22.3.22 isotc.geohash5

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.geohash5" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="isotc.geohashRoot">
            <constructor-arg name="name" value="geohash_5"/>
            <property name="converter" ref="geohashConverter_5"/>
    </bean>
```

22.3.23 isotc.geohash6

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.geohash6" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="isotc.geohashRoot">
            <constructor-arg name="name" value="geohash_6"/>
            <property name="converter" ref="geohashConverter_6"/>
    </bean>
```

22.3.24 isotc.geohash7

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.geohash7" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="isotc.geohashRoot">
            <constructor-arg name="name" value="geohash_7"/>
            <property name="converter" ref="geohashConverter_7"/>
    </bean>
```

22.3.25 isotc.geohash8

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.geohash8" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="isotc.geohashRoot">
            <constructor-arg name="name" value="geohash_8"/>
            <property name="converter" ref="geohashConverter_8"/>
    </bean>
```

22.3.26 isotc.isService

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.isService" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="isService"/>
            <constructor-arg name="xpath" value="boolean(//srv:SV_
→ServiceIdentification or //gmd:distributionInfo/gmd:MD_Distribution)"/>
    </bean>
```

22.3.27 isotc.serviceCoupling

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.serviceCoupling" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceCoupling"/>
            <constructor-arg name="xpath" value="concat( substring('loose', 1 div␣
→number(boolean( //srv:SV_ServiceIdentification/srv:couplingType/srv:SV_CouplingType/
→@codeListValue = 'loose'))),        substring('tight', 1 div number(boolean( //
→srv:SV_ServiceIdentification/srv:couplingType/srv:SV_CouplingType/@codeListValue =
→'tight'))),        substring('tight', 1 div number(boolean( //gmd:distributionInfo/
→gmd:MD_Distribution and not(//srv:SV_ServiceIdentification/srv:couplingType/srv:SV_
→CouplingType/@codeListValue)))),        substring('',  1 div number(boolean( not(
→//srv:SV_ServiceIdentification/srv:couplingType/srv:SV_CouplingType/@codeListValue)␣
```
```
→                and not(   //gmd:distributionInfo/gmd:MD_Distribution)))))"/>
```

```
        </bean>
```

22.3.28 isotc.serviceTitle

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.serviceTitle" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="serviceTitle"/>
        <constructor-arg name="xpath" value="(//srv:SV_ServiceIdentification/
→gmd:citation/gmd:CI_Citation/gmd:title/gco:CharacterString | //gmd:distributionInfo/
→gmd:MD_Distribution/gmd:distributor/gmd:MD_Distributor/
→gmd:distributorTransferOptions/gmd:MD_DigitalTransferOptions/gmd:onLine/gmd:CI_
→OnlineResource/gmd:name/gco:CharacterString)/text()"/>
        <property name="combineNodes" value="true"/>
        <property name="combineDelimiter" value=":"/>
    </bean>
```

22.3.29 isotc.serviceDescription

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.serviceDescription" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="serviceDescription"/>
        <constructor-arg name="xpath" value="(//srv:SV_ServiceIdentification/
→gmd:abstract/gco:CharacterString | //gmd:distributionInfo/gmd:MD_Distribution/
→gmd:distributor/gmd:MD_Distributor/gmd:distributorTransferOptions/gmd:MD_
→DigitalTransferOptions/gmd:onLine/gmd:CI_OnlineResource/gmd:description/
→gco:CharacterString)/text()"/>
        <property name="combineNodes" value="true"/>
        <property name="combineDelimiter" value=":"/>
    </bean>
```

22.3.30 isotc.serviceType

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.serviceType" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="serviceType"/>
        <constructor-arg name="xpath" value="//srv:SV_ServiceIdentification/
→srv:serviceType/gco:LocalName/text()"/>
        <property name="multivalue" value="true"/>
        <property name="converter" ref="serviceTypesConverter"/>
    </bean>
```

22.3.31 isotc.serviceEndpoint

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="isotc.serviceEndpoint" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceEndpoint"/>
            <constructor-arg name="xpath" value="//srv:SV_ServiceIdentification/
→srv:containsOperations/srv:SV_OperationMetadata/srv:connectPoint/gmd:CI_
→OnlineResource/gmd:linkage/gmd:URL/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

22.3.32 isotc.serviceInput

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="isotc.serviceInput" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceInput"/>
            <constructor-arg name="xpath" value="//srv:SV_ServiceIdentification/
→srv:operatesOn/@xlink:href"/>
            <property name="multivalue" value="true"/>
    </bean>
```

22.3.33 isotc.serviceOutput

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="isotc.serviceOutput" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceOutput"/>
            <constructor-arg name="xpath" value="//srv:SV_ServiceIdentification/
→gmd:resourceFormat/@xlink:href"/>
            <property name="multivalue" value="true"/>
    </bean>
```

22.3.34 isotc.distribServiceType

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
→id="isotc.distribServiceType" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceType"/>
            <constructor-arg name="xpath" value="//gmd:distributionInfo/gmd:MD_
→Distribution/gmd:distributor/gmd:MD_Distributor/gmd:distributorTransferOptions/
→gmd:MD_DigitalTransferOptions/gmd:onLine/gmd:CI_OnlineResource/gmd:protocol/
→gco:CharacterString/text()"/>
            <property name="multivalue" value="true"/>
            <property name="converter" ref="serviceTypesConverter"/>
    </bean>
```

22.3.35 isotc.distribServiceEndpoint

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.distribServiceEndpoint" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceEndpoint"/>
            <constructor-arg name="xpath" value="//gmd:distributionInfo/gmd:MD_
→Distribution/gmd:distributor/gmd:MD_Distributor/gmd:distributorTransferOptions/
→gmd:MD_DigitalTransferOptions/gmd:onLine/gmd:CI_OnlineResource/gmd:linkage/gmd:URL/
→text() | //gmd:distributionInfo/gmd:MD_Distribution/gmd:transferOptions/gmd:MD_
→DigitalTransferOptions/gmd:onLine/gmd:CI_OnlineResource/gmd:linkage/gmd:URL/text()"/
→>
            <property name="multivalue" value="true"/>
    </bean>
```

22.3.36 isotc.distribServiceInput

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.distribServiceInput" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceInput"/>
            <constructor-arg name="xpath" value="//gmd:distributionInfo/gmd:MD_
→Distribution/gmd:distributor/gmd:MD_Distributor/gmd:distributorTransferOptions/
→@xlink:href"/>
            <property name="multivalue" value="true"/>
    </bean>
```

22.3.37 isotc.distribServiceOutput

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.distribServiceOutput" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceOutput"/>
            <constructor-arg name="xpath" value="//gmd:distributionInfo/gmd:MD_
→Distribution/gmd:distributor/gmd:MD_Distributor/gmd:distributorFormat/gmd:MD_Format/
→gmd:version/gco:CharacterString/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

22.3.38 isotc.fileID

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.fileID" class="org.dataone.cn.indexer.parser.ResolveSolrField">
            <constructor-arg name="name" value="fileID"/>
    </bean>
```

22.3.39 isotc.fullText

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.fullText" class="org.dataone.cn.indexer.parser.FullTextSolrField">
        <constructor-arg name="name" value="text"/>
        <constructor-arg name="xpath" value="//*/text()"/>
        <property name="combineNodes" value="true"/>
    </bean>
```

ISO TC-211

Describes parser configuration for: isotc211Subprocessor

23.1 Format IDs Processed

This parser processes the following DataONE format IDs:

- Geographic MetaData (GMD) Extensible Markup Language
  formatId: `http://www.isotc211.org/2005/gmd`

A full list of DataONE format IDs can be found at https://cn.dataone.org/cn/v2/formats/

23.2 Fields

The following fields in the solr index are populated from values retrieved from this type of metadata document. Note that these are in addition to the information extracted from *System Metadata Parser*.

Solr Field	Multi	Dedupe	Source
Index.abstract	False	False	`//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:abstract/gco:CharacterString/text()` Processor: SolrField Configuration: *isotc.abstract*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.author	False	False	`(//gmd:CI_ResponsibleParty/gmd:individualName/` `gco:CharacterString/text() | //` `gmd:CI_ResponsibleParty/gmd:individualName/` `gmx:Anchor/text())[1]` Processor: SolrField Configuration: *isotc.author*
Index.authorSurName	False	False	`(//gmd:CI_ResponsibleParty/gmd:individualName/` `gco:CharacterString/text() | //` `gmd:CI_ResponsibleParty/gmd:individualName/` `gmx:Anchor/text())[1]` Processor: SolrField Configuration: *isotc.authorSurName*
Index. *authorSurNameSort*	False	False	`(//gmd:CI_ResponsibleParty/gmd:individualName/` `gco:CharacterString/text() | //` `gmd:CI_ResponsibleParty/gmd:individualName/` `gmx:Anchor/text())[1]` Processor: SolrField Configuration: *isotc.authorSurNameSort*
Index. *contactOrganization*	False	False	`(//gmd:CI_ResponsibleParty/gmd:organisationName/` `gco:CharacterString/text())[1]` Processor: SolrField Configuration: *isotc.contactOrganization*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.origin	True	True	`//gmd:CI_ResponsibleParty[gmd:role/gmd:CI_` `↪RoleCode/text() =` `"owner" or gmd:role/gmd:CI_RoleCode/text() =` `"originator" or gmd:role/gmd:CI_RoleCode/text()` `↪=` `"principalInvestigator" or gmd:role/gmd:CI_` `↪RoleCode/` `text() = "author"]/gmd:individualName/` `gco:CharacterString/text()	//` `gmd:CI_ResponsibleParty[(gmd:role/gmd:CI_` `↪RoleCode/` `text() = "owner" or gmd:role/gmd:CI_RoleCode/` `↪text()` `= "originator" or gmd:role/gmd:CI_RoleCode/` `↪text() =` `"principalInvestigator" or gmd:role/gmd:CI_` `↪RoleCode/` `text() = "author") and (not(gmd:individualName)` `↪or` `gmd:individualName[@gco:nilReason = "missing` `↪"])]/` `gmd:organisationName/gco:CharacterString/text()` Processor: SolrField Configuration: *isotc.origin*
Index.investigator	True	True	`//gmd:CI_ResponsibleParty/gmd:individualName/` `gco:CharacterString/text()	//` `gmd:CI_ResponsibleParty/gmd:individualName/` `gmx:Anchor/text()` Processor: SolrField Configuration: *isotc.investigator*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.pubDate	False	False	

```
if (//gmd:identificationInfo/*/gmd:citation/
↪gmd:CI_Citation/
gmd:date/gmd:CI_Date/gmd:date[
following-sibling::gmd:dateType/gmd:CI_
↪DateTypeCode/
text() = 'publication']/gco:Date/text())
     then //gmd:identificationInfo/*/
↪gmd:citation/
gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date[
following-sibling::gmd:dateType/gmd:CI_
↪DateTypeCode/
text() = 'publication']/gco:Date/text()
else if (//gmd:identificationInfo/*/
↪gmd:citation/
gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date[
following-sibling::gmd:dateType/gmd:CI_
↪DateTypeCode/
text() = 'publication']/gco:DateTime/text())
         then //gmd:identificationInfo/*/
gmd:citation/gmd:CI_Citation/gmd:date/gmd:CI_
↪Date/
gmd:date[following-sibling::gmd:dateType/
gmd:CI_DateTypeCode/text() = 'publication']/
gco:DateTime/text()            else if (//
gmd:identificationInfo/*/gmd:citation/
gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date/
gco:Date[1]/text())                 then //
gmd:identificationInfo/*/gmd:citation/
gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date/
gco:Date[1]/text()            else if (//
gmd:identificationInfo/*/gmd:citation/
gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date/
gco:DateTime[1]/text())                 then //
gmd:identificationInfo/*/gmd:citation/
gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date/
gco:DateTime[1]/text()            else ()
```

Processor: SolrField

Configuration: *isotc.pubDate*

Converter: SolrDateConverter

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Table 1 – continued from previous page

Solr Field	Multi	Dedupe	Source
Index.beginDate	False	False	
			``
//gmd:identificationInfo/gmd:MD_
↪DataIdentification/
gmd:extent/gmd:EX_Extent/gmd:temporalElement/
gmd:EX_TemporalExtent/gmd:extent/*[local-name()␣
↪=
'TimePeriod']/*[local-name() = 'beginPosition']/
text()
```
Processor: SolrField
Configuration: *isotc.beginDate*
Converter: SolrDateConverter |
| *Index.endDate* | False | False | |
| | | | ```
//gmd:identificationInfo/gmd:MD_
↪DataIdentification/
gmd:extent/gmd:EX_Extent/gmd:temporalElement/
gmd:EX_TemporalExtent/gmd:extent/*[local-name()␣
↪=
'TimePeriod']/*[local-name() = 'endPosition']/
↪text()
```
Processor: SolrField
Configuration: *isotc.endDate*
Converter: SolrDateConverter |
| *Index.title* | False | False | |
| | | | ```
//gmd:identificationInfo/gmd:MD_
↪DataIdentification/
gmd:citation/gmd:CI_Citation/gmd:title/
gco:CharacterString/text() | //
gmd:identificationInfo/gmd:MD_
↪DataIdentification/
gmd:citation/gmd:CI_Citation/gmd:title/
↪gmx:Anchor/
text()
```
Processor: SolrField
Configuration: *isotc.title* |

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Table 1 – continued from previous page

| Solr Field | Multi | Dedup | Source |
|---|---|---|---|
| *Index.keywords* | True | False | `//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:descriptiveKeywords/gmd:MD_Keywords/` `↪gmd:keyword/` `gmx:Anchor/text() \| //gmd:identificationInfo/` `gmd:MD_DataIdentification/` `↪gmd:descriptiveKeywords/` `gmd:MD_Keywords/gmd:keyword/gco:CharacterString/` `text()` <br><br> Processor: SolrField <br> Configuration: *isotc.keywords* |
| *Index.eastBoundCoord* | False | False | `//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:extent/gmd:EX_Extent/gmd:geographicElement/` `gmd:EX_GeographicBoundingBox/` `↪gmd:eastBoundLongitude/` `gco:Decimal/text()` <br><br> Processor: SolrField <br> Configuration: *isotc.eastBoundCoord* |
| *Index.westBoundCoord* | False | False | `//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:extent/gmd:EX_Extent/gmd:geographicElement/` `gmd:EX_GeographicBoundingBox/` `↪gmd:westBoundLongitude/` `gco:Decimal/text()` <br><br> Processor: SolrField <br> Configuration: *isotc.westBoundCoord* |
| *Index. southBoundCoord* | False | False | `//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:extent/gmd:EX_Extent/gmd:geographicElement/` `gmd:EX_GeographicBoundingBox/` `↪gmd:southBoundLatitude/` `gco:Decimal/text()` <br><br> Processor: SolrField <br> Configuration: *isotc.southBoundCoord* |

Table 1 – continued from previous page

| Solr Field | Multi | Dedup | Source |
|---|---|---|---|
| *Index. northBoundCoord* | False | False | `//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:extent/gmd:EX_Extent/gmd:geographicElement/` `gmd:EX_GeographicBoundingBox/` `↪gmd:northBoundLatitude/` `gco:Decimal/text()`<br><br>Processor: SolrField<br><br>Configuration: *isotc.northBoundCoord* |
| *Index.geohash_9* | False | | `//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:extent/gmd:EX_Extent/gmd:geographicElement/` `gmd:EX_GeographicBoundingBox ->{{[` `northBoundingCoordinate]␣` `↪[southBoundingCoordinate] [` `eastBoundingCoordinate]␣` `↪[westBoundingCoordinate]}};` `northBoundingCoordinate =␣` `↪gmd:northBoundLatitude/` `gco:Decimal/text(); southBoundingCoordinate =` `gmd:southBoundLatitude/gco:Decimal/text();` `eastBoundingCoordinate = gmd:eastBoundLongitude/` `gco:Decimal/text(); westBoundingCoordinate =` `gmd:westBoundLongitude/gco:Decimal/text()`<br><br>Processor: CommonRootSolrField<br><br>Configuration: *isotc.geohash9*<br><br>Notes: This bean uses a template populated from additional sources. See configuration for more details.<br><br>Converter: GeohashConverter |

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Table  1 – continued from previous page

| Solr Field | Multi | Dedup | Source |
|---|---|---|---|
| *Index.geohash_1* | False | | `//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:extent/gmd:EX_Extent/gmd:geographicElement/` `gmd:EX_GeographicBoundingBox ->{{[` `northBoundingCoordinate]␣` `↪[southBoundingCoordinate] [` `eastBoundingCoordinate]␣` `↪[westBoundingCoordinate]}};` `northBoundingCoordinate =␣` `↪gmd:northBoundLatitude/` `gco:Decimal/text(); southBoundingCoordinate =` `gmd:southBoundLatitude/gco:Decimal/text();` `eastBoundingCoordinate = gmd:eastBoundLongitude/` `gco:Decimal/text(); westBoundingCoordinate =` `gmd:westBoundLongitude/gco:Decimal/text()`<br><br>Processor: CommonRootSolrField<br>Configuration: *isotc.geohash1*<br>Notes: This bean uses a template populated from additional sources. See configuration for more details.<br>Converter: GeohashConverter |
| *Index.geohash_2* | False | | `//gmd:identificationInfo/gmd:MD_` `↪DataIdentification/` `gmd:extent/gmd:EX_Extent/gmd:geographicElement/` `gmd:EX_GeographicBoundingBox ->{{[` `northBoundingCoordinate]␣` `↪[southBoundingCoordinate] [` `eastBoundingCoordinate]␣` `↪[westBoundingCoordinate]}};` `northBoundingCoordinate =␣` `↪gmd:northBoundLatitude/` `gco:Decimal/text(); southBoundingCoordinate =` `gmd:southBoundLatitude/gco:Decimal/text();` `eastBoundingCoordinate = gmd:eastBoundLongitude/` `gco:Decimal/text(); westBoundingCoordinate =` `gmd:westBoundLongitude/gco:Decimal/text()`<br><br>Processor: CommonRootSolrField<br>Configuration: *isotc.geohash2*<br>Notes: This bean uses a template populated from additional sources. See configuration for more details.<br>Converter: GeohashConverter |

Table 1 – continued from previous page

| Solr Field | Multi | Dedup | Source |
|---|---|---|---|
| *Index.geohash_3* | False | | `//gmd:identificationInfo/gmd:MD_`<br>`↪DataIdentification/`<br>`gmd:extent/gmd:EX_Extent/gmd:geographicElement/`<br>`gmd:EX_GeographicBoundingBox ->{{[`<br>`northBoundingCoordinate]␣`<br>`↪[southBoundingCoordinate] [`<br>`eastBoundingCoordinate]␣`<br>`↪[westBoundingCoordinate]}};`<br>`northBoundingCoordinate =␣`<br>`↪gmd:northBoundLatitude/`<br>`gco:Decimal/text(); southBoundingCoordinate =`<br>`gmd:southBoundLatitude/gco:Decimal/text();`<br>`eastBoundingCoordinate = gmd:eastBoundLongitude/`<br>`gco:Decimal/text(); westBoundingCoordinate =`<br>`gmd:westBoundLongitude/gco:Decimal/text()`<br><br>Processor: CommonRootSolrField<br><br>Configuration: *isotc.geohash3*<br><br>Notes: This bean uses a template populated from additional sources. See configuration for more details.<br><br>Converter: GeohashConverter |
| *Index.geohash_4* | False | | `//gmd:identificationInfo/gmd:MD_`<br>`↪DataIdentification/`<br>`gmd:extent/gmd:EX_Extent/gmd:geographicElement/`<br>`gmd:EX_GeographicBoundingBox ->{{[`<br>`northBoundingCoordinate]␣`<br>`↪[southBoundingCoordinate] [`<br>`eastBoundingCoordinate]␣`<br>`↪[westBoundingCoordinate]}};`<br>`northBoundingCoordinate =␣`<br>`↪gmd:northBoundLatitude/`<br>`gco:Decimal/text(); southBoundingCoordinate =`<br>`gmd:southBoundLatitude/gco:Decimal/text();`<br>`eastBoundingCoordinate = gmd:eastBoundLongitude/`<br>`gco:Decimal/text(); westBoundingCoordinate =`<br>`gmd:westBoundLongitude/gco:Decimal/text()`<br><br>Processor: CommonRootSolrField<br><br>Configuration: *isotc.geohash4*<br><br>Notes: This bean uses a template populated from additional sources. See configuration for more details.<br><br>Converter: GeohashConverter |

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Table  1 – continued from previous page

| Solr Field | Multi | Dedupe | Source |
|---|---|---|---|
| *Index.geohash_5* | False | | `//gmd:identificationInfo/gmd:MD_`<br>`↪DataIdentification/`<br>`gmd:extent/gmd:EX_Extent/gmd:geographicElement/`<br>`gmd:EX_GeographicBoundingBox ->{{[`<br>`northBoundingCoordinate]␣`<br>`↪[southBoundingCoordinate] [`<br>`eastBoundingCoordinate]␣`<br>`↪[westBoundingCoordinate]}};`<br>`northBoundingCoordinate =␣`<br>`↪gmd:northBoundLatitude/`<br>`gco:Decimal/text(); southBoundingCoordinate =`<br>`gmd:southBoundLatitude/gco:Decimal/text();`<br>`eastBoundingCoordinate = gmd:eastBoundLongitude/`<br>`gco:Decimal/text(); westBoundingCoordinate =`<br>`gmd:westBoundLongitude/gco:Decimal/text()`<br><br>Processor: CommonRootSolrField<br>Configuration: *isotc.geohash5*<br>Notes: This bean uses a template populated from additional sources. See configuration for more details.<br>Converter: GeohashConverter |
| *Index.geohash_6* | False | | `//gmd:identificationInfo/gmd:MD_`<br>`↪DataIdentification/`<br>`gmd:extent/gmd:EX_Extent/gmd:geographicElement/`<br>`gmd:EX_GeographicBoundingBox ->{{[`<br>`northBoundingCoordinate]␣`<br>`↪[southBoundingCoordinate] [`<br>`eastBoundingCoordinate]␣`<br>`↪[westBoundingCoordinate]}};`<br>`northBoundingCoordinate =␣`<br>`↪gmd:northBoundLatitude/`<br>`gco:Decimal/text(); southBoundingCoordinate =`<br>`gmd:southBoundLatitude/gco:Decimal/text();`<br>`eastBoundingCoordinate = gmd:eastBoundLongitude/`<br>`gco:Decimal/text(); westBoundingCoordinate =`<br>`gmd:westBoundLongitude/gco:Decimal/text()`<br><br>Processor: CommonRootSolrField<br>Configuration: *isotc.geohash6*<br>Notes: This bean uses a template populated from additional sources. See configuration for more details.<br>Converter: GeohashConverter |

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Table 1 – continued from previous page

| Solr Field | Multi | Dedupe | Source |
|---|---|---|---|
| *Index.geohash_7* | False | | `//gmd:identificationInfo/gmd:MD_`<br>`↪DataIdentification/`<br>`gmd:extent/gmd:EX_Extent/gmd:geographicElement/`<br>`gmd:EX_GeographicBoundingBox ->{{[`<br>`northBoundingCoordinate]␣`<br>`↪[southBoundingCoordinate] [`<br>`eastBoundingCoordinate]␣`<br>`↪[westBoundingCoordinate]}};`<br>`northBoundingCoordinate =␣`<br>`↪gmd:northBoundLatitude/`<br>`gco:Decimal/text(); southBoundingCoordinate =`<br>`gmd:southBoundLatitude/gco:Decimal/text();`<br>`eastBoundingCoordinate = gmd:eastBoundLongitude/`<br>`gco:Decimal/text(); westBoundingCoordinate =`<br>`gmd:westBoundLongitude/gco:Decimal/text()`<br><br>Processor: CommonRootSolrField<br><br>Configuration: *isotc.geohash7*<br><br>Notes: This bean uses a template populated from additional sources. See configuration for more details.<br><br>Converter: GeohashConverter |
| *Index.geohash_8* | False | | `//gmd:identificationInfo/gmd:MD_`<br>`↪DataIdentification/`<br>`gmd:extent/gmd:EX_Extent/gmd:geographicElement/`<br>`gmd:EX_GeographicBoundingBox ->{{[`<br>`northBoundingCoordinate]␣`<br>`↪[southBoundingCoordinate] [`<br>`eastBoundingCoordinate]␣`<br>`↪[westBoundingCoordinate]}};`<br>`northBoundingCoordinate =␣`<br>`↪gmd:northBoundLatitude/`<br>`gco:Decimal/text(); southBoundingCoordinate =`<br>`gmd:southBoundLatitude/gco:Decimal/text();`<br>`eastBoundingCoordinate = gmd:eastBoundLongitude/`<br>`gco:Decimal/text(); westBoundingCoordinate =`<br>`gmd:westBoundLongitude/gco:Decimal/text()`<br><br>Processor: CommonRootSolrField<br><br>Configuration: *isotc.geohash8*<br><br>Notes: This bean uses a template populated from additional sources. See configuration for more details.<br><br>Converter: GeohashConverter |

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Table 1 – continued from previous page

| Solr Field | Multi | Dedup | Source |
|---|---|---|---|
| *Index.isService* | False | False | `boolean(//srv:SV_ServiceIdentification or //`<br>`gmd:distributionInfo/gmd:MD_Distribution)`<br><br>Processor: SolrField<br>Configuration: *isotc.isService* |
| *Index.serviceCoupling* | False | False | `concat( substring('loose', 1 div␣`<br>`→number(boolean( //`<br>`srv:SV_ServiceIdentification/srv:couplingType/`<br>`srv:SV_CouplingType/@codeListValue = 'loose'))),`<br>`    substring('tight', 1 div number(boolean( //`<br>`srv:SV_ServiceIdentification/srv:couplingType/`<br>`srv:SV_CouplingType/@codeListValue = 'tight'))),`<br>`    substring('tight', 1 div number(boolean( //`<br>`gmd:distributionInfo/gmd:MD_Distribution and␣`<br>`→not(//`<br>`srv:SV_ServiceIdentification/srv:couplingType/`<br>`srv:SV_CouplingType/@codeListValue)))),`<br>`substring('',  1 div number(boolean( not(   //`<br>`srv:SV_ServiceIdentification/srv:couplingType/`<br>`srv:SV_CouplingType/@codeListValue)`<br>` and not(   //gmd:distributionInfo/`<br>`gmd:MD_Distribution)))))`<br><br>Processor: SolrField<br>Configuration: *isotc.serviceCoupling* |
| *Index.serviceTitle* | False | False | `(//srv:SV_ServiceIdentification/gmd:citation/`<br>`gmd:CI_Citation/gmd:title/gco:CharacterString |␣`<br>`→//`<br>`gmd:distributionInfo/gmd:MD_Distribution/`<br>`gmd:distributor/gmd:MD_Distributor/`<br>`gmd:distributorTransferOptions/`<br>`gmd:MD_DigitalTransferOptions/gmd:onLine/`<br>`gmd:CI_OnlineResource/gmd:name/`<br>`→gco:CharacterString)/`<br>`text()`<br><br>Processor: SolrField<br>Configuration: *isotc.serviceTitle* |

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Table 1 – continued from previous page

| Solr Field | Multi | Dedupe | Source |
| --- | --- | --- | --- |
| *Index.*<br>*serviceDescription* | False | False | ```<br>(//srv:SV_ServiceIdentification/gmd:abstract/<br>gco:CharacterString | //gmd:distributionInfo/<br>gmd:MD_Distribution/gmd:distributor/<br>gmd:MD_Distributor/<br>↪gmd:distributorTransferOptions/<br>gmd:MD_DigitalTransferOptions/gmd:onLine/<br>gmd:CI_OnlineResource/gmd:description/<br>gco:CharacterString)/text()<br>```<br><br>Processor: SolrField<br><br>Configuration: *isotc.serviceDescription* |
| *Index.serviceType* | True | False | ```<br>//srv:SV_ServiceIdentification/srv:serviceType/<br>gco:LocalName/text()<br>```<br><br>Processor: SolrField<br><br>Configuration: *isotc.serviceType*<br><br>Converter: MemberNodeServiceRegistrationTypeConverter |
| *Index.*<br>*serviceEndpoint* | True | False | ```<br>//srv:SV_ServiceIdentification/<br>↪srv:containsOperations/<br>srv:SV_OperationMetadata/srv:connectPoint/<br>gmd:CI_OnlineResource/gmd:linkage/gmd:URL/text()<br>```<br><br>Processor: SolrField<br><br>Configuration: *isotc.serviceEndpoint* |
| *Index.serviceInput* | True | False | ```<br>//srv:SV_ServiceIdentification/srv:operatesOn/<br>↪@xlink:href<br>```<br><br>Processor: SolrField<br><br>Configuration: *isotc.serviceInput* |
| *Index.serviceOutput* | True | False | ```<br>//srv:SV_ServiceIdentification/<br>↪gmd:resourceFormat/<br>@xlink:href<br>```<br><br>Processor: SolrField<br><br>Configuration: *isotc.serviceOutput* |

Table 1 – continued from previous page

| Solr Field | Multi | Dedup | Source |
|---|---|---|---|
| *Index.serviceType* | True | False | `//gmd:distributionInfo/gmd:MD_Distribution/`<br>`↪gmd:distributor/`<br>`gmd:MD_Distributor/`<br>`↪gmd:distributorTransferOptions/`<br>`gmd:MD_DigitalTransferOptions/gmd:onLine/`<br>`gmd:CI_OnlineResource/gmd:protocol/`<br>`gco:CharacterString/text()`<br><br>Processor: SolrField<br><br>Configuration: *isotc.distribServiceType*<br><br>Converter: MemberNodeServiceRegistrationTypeConverter |
| *Index.serviceEndpoint* | True | False | `//gmd:distributionInfo/gmd:MD_Distribution/`<br>`↪gmd:distributor/`<br>`gmd:MD_Distributor/`<br>`↪gmd:distributorTransferOptions/`<br>`gmd:MD_DigitalTransferOptions/gmd:onLine/`<br>`gmd:CI_OnlineResource/gmd:linkage/gmd:URL/`<br>`↪text() | /`<br>`/gmd:distributionInfo/gmd:MD_Distribution/`<br>`gmd:transferOptions/gmd:MD_`<br>`↪DigitalTransferOptions/`<br>`gmd:onLine/gmd:CI_OnlineResource/gmd:linkage/`<br>`gmd:URL/text()`<br><br>Processor: SolrField<br><br>Configuration: *isotc.distribServiceEndpoint* |
| *Index.serviceInput* | True | False | `//gmd:distributionInfo/gmd:MD_Distribution/`<br>`↪gmd:distributor/`<br>`gmd:MD_Distributor/`<br>`↪gmd:distributorTransferOptions/`<br>`@xlink:href`<br><br>Processor: SolrField<br><br>Configuration: *isotc.distribServiceInput* |
| *Index.serviceOutput* | True | False | `//gmd:distributionInfo/gmd:MD_Distribution/`<br>`↪gmd:distributor/`<br>`gmd:MD_Distributor/gmd:distributorFormat/`<br>`gmd:MD_Format/gmd:version/gco:CharacterString/`<br>`↪text()`<br><br>Processor: SolrField<br><br>Configuration: *isotc.distribServiceOutput* |

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Table 1 – continued from previous page

| Solr Field | Multi | Dedup | Source |
|---|---|---|---|
| *Index.fileID* | | | Processor: ResolveSolrField<br><br>Configuration: *isotc.fileID*<br><br>Notes: SolrField which configures the resolve url for the document being processed.<br><br>Converter: |
| *Index.text* | False | False | `//*/text()`<br><br>Processor: FullTextSolrField<br><br>Configuration: *isotc.fullText* |

## 23.3 Bean Configurations

### 23.3.1 isotc.abstract

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.abstract" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="abstract"/>
        <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
↪DataIdentification/gmd:abstract/gco:CharacterString/text()"/>
    </bean>
```

23.3.2 isotc.author

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.author" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="author"/>
        <constructor-arg name="xpath" value="(//gmd:CI_ResponsibleParty/
↪gmd:individualName/gco:CharacterString/text() | //gmd:CI_ResponsibleParty/
↪gmd:individualName/gmx:Anchor/text())[1]"/>
    </bean>
```

23.3.3 isotc.authorSurName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.authorSurName" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="authorSurName"/>
        <constructor-arg name="xpath" value="(//gmd:CI_ResponsibleParty/
↪gmd:individualName/gco:CharacterString/text() | //gmd:CI_ResponsibleParty/
↪gmd:individualName/gmx:Anchor/text())[1]"/>
```

```
            <property name="multivalue" value="false"/>
    </bean>
```

23.3.4 isotc.authorSurNameSort

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.authorSurNameSort" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorSurNameSort"/>
            <constructor-arg name="xpath" value="(//gmd:CI_ResponsibleParty/
↪gmd:individualName/gco:CharacterString/text() | //gmd:CI_ResponsibleParty/
↪gmd:individualName/gmx:Anchor/text())[1]"/>
            <property name="multivalue" value="false"/>
    </bean>
```

23.3.5 isotc.contactOrganization

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.contactOrganization" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="contactOrganization"/>
            <constructor-arg name="xpath" value="(//gmd:CI_ResponsibleParty/
↪gmd:organisationName/gco:CharacterString/text())[1]"/>
    </bean>
```

23.3.6 isotc.origin

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.origin" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="origin"/>
            <constructor-arg name="xpath" value="//gmd:CI_ResponsibleParty[gmd:role/
↪gmd:CI_RoleCode/text() = &quot;owner&quot; or gmd:role/gmd:CI_RoleCode/text() = &
↪quot;originator&quot; or gmd:role/gmd:CI_RoleCode/text() = &quot;
↪principalInvestigator&quot; or gmd:role/gmd:CI_RoleCode/text() = &quot;author&quot;
↪]/gmd:individualName/gco:CharacterString/text() | //gmd:CI_
↪ResponsibleParty[(gmd:role/gmd:CI_RoleCode/text() = &quot;owner&quot; or gmd:role/
↪gmd:CI_RoleCode/text() = &quot;originator&quot; or gmd:role/gmd:CI_RoleCode/text()␣
↪= &quot;principalInvestigator&quot; or gmd:role/gmd:CI_RoleCode/text() = &quot;
↪author&quot;) and (not(gmd:individualName) or gmd:individualName[@gco:nilReason = &
↪quot;missing&quot;])]/gmd:organisationName/gco:CharacterString/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

23.3.7 isotc.investigator

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.investigator" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="investigator"/>
            <constructor-arg name="xpath" value="//gmd:CI_ResponsibleParty/
→gmd:individualName/gco:CharacterString/text() | //gmd:CI_ResponsibleParty/
→gmd:individualName/gmx:Anchor/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

23.3.8 isotc.pubDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.pubDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="pubDate"/>
            <constructor-arg name="xpath" value="if (//gmd:identificationInfo/*/
→gmd:citation/gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date[following-
→sibling::gmd:dateType/gmd:CI_DateTypeCode/text() = 'publication']/gco:Date/text())␣
→            then //gmd:identificationInfo/*/gmd:citation/gmd:CI_Citation/
→gmd:date/gmd:CI_Date/gmd:date[following-sibling::gmd:dateType/gmd:CI_DateTypeCode/
→text() = 'publication']/gco:Date/text()            else if (//gmd:identificationInfo/
→*/gmd:citation/gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date[following-
→sibling::gmd:dateType/gmd:CI_DateTypeCode/text() = 'publication']/gco:DateTime/
→text())            then //gmd:identificationInfo/*/gmd:citation/gmd:CI_
→Citation/gmd:date/gmd:CI_Date/gmd:date[following-sibling::gmd:dateType/gmd:CI_
→DateTypeCode/text() = 'publication']/gco:DateTime/text()            else if (//
→gmd:identificationInfo/*/gmd:citation/gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date/
→gco:Date[1]/text())            then //gmd:identificationInfo/*/gmd:citation/
→gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date/gco:Date[1]/text()            else if␣
→(//gmd:identificationInfo/*/gmd:citation/gmd:CI_Citation/gmd:date/gmd:CI_Date/
→gmd:date/gco:DateTime[1]/text())            then //gmd:identificationInfo/*/
→gmd:citation/gmd:CI_Citation/gmd:date/gmd:CI_Date/gmd:date/gco:DateTime[1]/text()␣
→        else ()"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

23.3.9 isotc.beginDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.beginDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="beginDate"/>
            <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
→DataIdentification/gmd:extent/gmd:EX_Extent/gmd:temporalElement/gmd:EX_
→TemporalExtent/gmd:extent/*[local-name() = 'TimePeriod']/*[local-name() =
→'beginPosition']/text()"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

23.3.10 isotc.endDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.endDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="endDate"/>
            <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
→DataIdentification/gmd:extent/gmd:EX_Extent/gmd:temporalElement/gmd:EX_
→TemporalExtent/gmd:extent/*[local-name() = 'TimePeriod']/*[local-name() =
→'endPosition']/text()"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

23.3.11 isotc.title

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.title" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="title"/>
            <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
→DataIdentification/gmd:citation/gmd:CI_Citation/gmd:title/gco:CharacterString/
→text() | //gmd:identificationInfo/gmd:MD_DataIdentification/gmd:citation/gmd:CI_
→Citation/gmd:title/gmx:Anchor/text()"/>
    </bean>
```

23.3.12 isotc.keywords

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.keywords" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="keywords"/>
            <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
→DataIdentification/gmd:descriptiveKeywords/gmd:MD_Keywords/gmd:keyword/gmx:Anchor/
→text() | //gmd:identificationInfo/gmd:MD_DataIdentification/gmd:descriptiveKeywords/
→gmd:MD_Keywords/gmd:keyword/gco:CharacterString/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

23.3.13 isotc.eastBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.eastBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="eastBoundCoord"/>
            <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
→DataIdentification/gmd:extent/gmd:EX_Extent/gmd:geographicElement/gmd:EX_
→GeographicBoundingBox/gmd:eastBoundLongitude/gco:Decimal/text()"/>
    </bean>
```

23.3.14 isotc.westBoundCoord

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.westBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="westBoundCoord"/>
        <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
→DataIdentification/gmd:extent/gmd:EX_Extent/gmd:geographicElement/gmd:EX_
→GeographicBoundingBox/gmd:westBoundLongitude/gco:Decimal/text()"/>
    </bean>
```

23.3.15 isotc.southBoundCoord

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.southBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="southBoundCoord"/>
        <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
→DataIdentification/gmd:extent/gmd:EX_Extent/gmd:geographicElement/gmd:EX_
→GeographicBoundingBox/gmd:southBoundLatitude/gco:Decimal/text()"/>
    </bean>
```

23.3.16 isotc.northBoundCoord

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.northBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="northBoundCoord"/>
        <constructor-arg name="xpath" value="//gmd:identificationInfo/gmd:MD_
→DataIdentification/gmd:extent/gmd:EX_Extent/gmd:geographicElement/gmd:EX_
→GeographicBoundingBox/gmd:northBoundLatitude/gco:Decimal/text()"/>
    </bean>
```

23.3.17 isotc.geohash9

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.geohash9" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="isotc.geohashRoot">
        <constructor-arg name="name" value="geohash_9"/>
        <property name="converter" ref="geohashConverter_9"/>
    </bean>
```

23.3.18 isotc.geohash1

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.geohash1" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="isotc.geohashRoot">
        <constructor-arg name="name" value="geohash_1"/>
```

```xml
                <property name="converter" ref="geohashConverter_1"/>
        </bean>
```

23.3.19 isotc.geohash2

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.geohash2" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="isotc.geohashRoot">
                <constructor-arg name="name" value="geohash_2"/>
                <property name="converter" ref="geohashConverter_2"/>
        </bean>
```

23.3.20 isotc.geohash3

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.geohash3" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="isotc.geohashRoot">
                <constructor-arg name="name" value="geohash_3"/>
                <property name="converter" ref="geohashConverter_3"/>
        </bean>
```

23.3.21 isotc.geohash4

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.geohash4" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="isotc.geohashRoot">
                <constructor-arg name="name" value="geohash_4"/>
                <property name="converter" ref="geohashConverter_4"/>
        </bean>
```

23.3.22 isotc.geohash5

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.geohash5" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="isotc.geohashRoot">
                <constructor-arg name="name" value="geohash_5"/>
                <property name="converter" ref="geohashConverter_5"/>
        </bean>
```

23.3.23 isotc.geohash6

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.geohash6" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="isotc.geohashRoot">
            <constructor-arg name="name" value="geohash_6"/>
            <property name="converter" ref="geohashConverter_6"/>
    </bean>
```

23.3.24 isotc.geohash7

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.geohash7" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="isotc.geohashRoot">
            <constructor-arg name="name" value="geohash_7"/>
            <property name="converter" ref="geohashConverter_7"/>
    </bean>
```

23.3.25 isotc.geohash8

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.geohash8" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="true" p:root-ref="isotc.geohashRoot">
            <constructor-arg name="name" value="geohash_8"/>
            <property name="converter" ref="geohashConverter_8"/>
    </bean>
```

23.3.26 isotc.isService

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.isService" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="isService"/>
            <constructor-arg name="xpath" value="boolean(//srv:SV_
↪ServiceIdentification or //gmd:distributionInfo/gmd:MD_Distribution)"/>
    </bean>
```

23.3.27 isotc.serviceCoupling

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="isotc.serviceCoupling" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceCoupling"/>
            <constructor-arg name="xpath" value="concat( substring('loose', 1 div␣
↪number(boolean( //srv:SV_ServiceIdentification/srv:couplingType/srv:SV_CouplingType/
↪@codeListValue = 'loose'))),        substring('tight', 1 div number(boolean( //
↪srv:SV_ServiceIdentification/srv:couplingType/srv:SV_CouplingType/@codeListValue =
↪'tight'))),        substring('tight', 1 div number(boolean( //gmd:distributionInfo/
↪gmd:MD_Distribution and not(//srv:SV_ServiceIdentification/srv:couplingType/srv:SV_
↪CouplingType/@codeListValue)))),        substring('',  1 div number(boolean( not(
↪//srv:SV_ServiceIdentification/srv:couplingType/srv:SV_CouplingType/@codeListValue)␣
                          and not(  //gmd:distributionInfo/gmd:MD_Distribution)))))"/>
```

```
        </bean>
```

23.3.28 isotc.serviceTitle

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.serviceTitle" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="serviceTitle"/>
        <constructor-arg name="xpath" value="(//srv:SV_ServiceIdentification/
→gmd:citation/gmd:CI_Citation/gmd:title/gco:CharacterString | //gmd:distributionInfo/
→gmd:MD_Distribution/gmd:distributor/gmd:MD_Distributor/
→gmd:distributorTransferOptions/gmd:MD_DigitalTransferOptions/gmd:onLine/gmd:CI_
→OnlineResource/gmd:name/gco:CharacterString)/text()"/>
        <property name="combineNodes" value="true"/>
        <property name="combineDelimiter" value=":"/>
    </bean>
```

23.3.29 isotc.serviceDescription

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.serviceDescription" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="serviceDescription"/>
        <constructor-arg name="xpath" value="(//srv:SV_ServiceIdentification/
→gmd:abstract/gco:CharacterString | //gmd:distributionInfo/gmd:MD_Distribution/
→gmd:distributor/gmd:MD_Distributor/gmd:distributorTransferOptions/gmd:MD_
→DigitalTransferOptions/gmd:onLine/gmd:CI_OnlineResource/gmd:description/
→gco:CharacterString)/text()"/>
        <property name="combineNodes" value="true"/>
        <property name="combineDelimiter" value=":"/>
    </bean>
```

23.3.30 isotc.serviceType

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.serviceType" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="serviceType"/>
        <constructor-arg name="xpath" value="//srv:SV_ServiceIdentification/
→srv:serviceType/gco:LocalName/text()"/>
        <property name="multivalue" value="true"/>
        <property name="converter" ref="serviceTypesConverter"/>
    </bean>
```

23.3.31 isotc.serviceEndpoint

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.serviceEndpoint" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceEndpoint"/>
            <constructor-arg name="xpath" value="//srv:SV_ServiceIdentification/
→srv:containsOperations/srv:SV_OperationMetadata/srv:connectPoint/gmd:CI_
→OnlineResource/gmd:linkage/gmd:URL/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

23.3.32 isotc.serviceInput

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.serviceInput" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceInput"/>
            <constructor-arg name="xpath" value="//srv:SV_ServiceIdentification/
→srv:operatesOn/@xlink:href"/>
            <property name="multivalue" value="true"/>
    </bean>
```

23.3.33 isotc.serviceOutput

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.serviceOutput" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceOutput"/>
            <constructor-arg name="xpath" value="//srv:SV_ServiceIdentification/
→gmd:resourceFormat/@xlink:href"/>
            <property name="multivalue" value="true"/>
    </bean>
```

23.3.34 isotc.distribServiceType

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.distribServiceType" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="serviceType"/>
            <constructor-arg name="xpath" value="//gmd:distributionInfo/gmd:MD_
→Distribution/gmd:distributor/gmd:MD_Distributor/gmd:distributorTransferOptions/
→gmd:MD_DigitalTransferOptions/gmd:onLine/gmd:CI_OnlineResource/gmd:protocol/
→gco:CharacterString/text()"/>
            <property name="multivalue" value="true"/>
            <property name="converter" ref="serviceTypesConverter"/>
    </bean>
```

23.3.35 isotc.distribServiceEndpoint

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.distribServiceEndpoint" class="org.dataone.cn.indexer.parser.SolrField">
          <constructor-arg name="name" value="serviceEndpoint"/>
          <constructor-arg name="xpath" value="//gmd:distributionInfo/gmd:MD_
→Distribution/gmd:distributor/gmd:MD_Distributor/gmd:distributorTransferOptions/
→gmd:MD_DigitalTransferOptions/gmd:onLine/gmd:CI_OnlineResource/gmd:linkage/gmd:URL/
→text() | //gmd:distributionInfo/gmd:MD_Distribution/gmd:transferOptions/gmd:MD_
→DigitalTransferOptions/gmd:onLine/gmd:CI_OnlineResource/gmd:linkage/gmd:URL/text()"/
→>
          <property name="multivalue" value="true"/>
      </bean>
```

23.3.36 isotc.distribServiceInput

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.distribServiceInput" class="org.dataone.cn.indexer.parser.SolrField">
          <constructor-arg name="name" value="serviceInput"/>
          <constructor-arg name="xpath" value="//gmd:distributionInfo/gmd:MD_
→Distribution/gmd:distributor/gmd:MD_Distributor/gmd:distributorTransferOptions/
→@xlink:href"/>
          <property name="multivalue" value="true"/>
      </bean>
```

23.3.37 isotc.distribServiceOutput

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.distribServiceOutput" class="org.dataone.cn.indexer.parser.SolrField">
          <constructor-arg name="name" value="serviceOutput"/>
          <constructor-arg name="xpath" value="//gmd:distributionInfo/gmd:MD_
→Distribution/gmd:distributor/gmd:MD_Distributor/gmd:distributorFormat/gmd:MD_Format/
→gmd:version/gco:CharacterString/text()"/>
          <property name="multivalue" value="true"/>
      </bean>
```

23.3.38 isotc.fileID

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.fileID" class="org.dataone.cn.indexer.parser.ResolveSolrField">
          <constructor-arg name="name" value="fileID"/>
      </bean>
```

23.3.39 isotc.fullText

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="isotc.fullText" class="org.dataone.cn.indexer.parser.FullTextSolrField">
            <constructor-arg name="name" value="text"/>
            <constructor-arg name="xpath" value="//*/text()"/>
            <property name="combineNodes" value="true"/>
    </bean>
```

Mercury metadata

Describes parser configuration for: ornlMercury10Subprocessor

24.1 Format IDs Processed

This parser processes the following DataONE format IDs:

- Oak Ridge National Lab Mercury Metadata version 1.0
  formatId: `http://purl.org/ornl/schema/mercury/terms/v1.0`

A full list of DataONE format IDs can be found at https://cn.dataone.org/cn/v2/formats/

24.2 Fields

The following fields in the solr index are populated from values retrieved from this type of metadata document. Note that these are in addition to the information extracted from *System Metadata Parser*.

Solr Field	Multi	Dedupe	Source

Index.abstract	False	False	`/*[local-name() = 'metadata']/idinfo/descript/`
			`↪abstract/`
			`descendant::text()`
			
			Processor: MergeSolrField
			Configuration: *fgdc.abstract*

Continued on next page

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.beginDate	False	False	`/*[local-name() = 'metadata']/idinfo/timeperd/`
			`↪timeinfo/`
			`rngdates/begdate/text()`
			
			Processor: SolrField
			Configuration: *fgdc.beginDate*
			
			Converter: FgdcDateConverter

Index.contactOrganization	True	True	`/*[local-name() = 'metadata']/distinfo/distrib/` `↪cntinfo/` `cntperp/cntorg/text()	/*[local-name() =` `'metadata']/distinfo/distrib/cntinfo/cntorgp/` `↪cntorg/` `text()` Processor: SolrField Configuration: *fgdc.contactOrganization*

Index.eastBoundCoord	False	False	`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding/eastbc/`
			`text()`
			
			Processor: SolrField
			Configuration: *fgdc.eastBoundCoord*
			
			Converter: SolrLongitudeConverter

Index.westBoundCoord	False	False	`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding/westbc/`
			`text()`
			
			Processor: SolrField
			Configuration: *fgdc.westBoundCoord*
			
			Converter: SolrLongitudeConverter

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.
northBoundCoord
	False	False	`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding/northbc/`
			`text()`
			
			Processor: SolrField
			
			Configuration: *fgdc.northBoundCoord*
			
			Converter: SolrLongitudeConverter

Index.
southBoundCoord
	False	False	`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding/southbc/`
			`text()`
			
			Processor: SolrField
			
			Configuration: *fgdc.southBoundCoord*
			
			Converter: SolrLongitudeConverter

Index.edition	False	False	`/*[local-name() = 'metadata']/idinfo/citeinfo/`
			`↪edition/text()`
			
			Processor: SolrField
			Configuration: *fgdc.edition*

Index.endDate	False	False	`/*[local-name() = 'metadata']/idinfo/timeperd/`
			`↪timeinfo/`
			`rngdates/enddate/text()`
			
			Processor: SolrField
			Configuration: *fgdc.endDate*
			
			Converter: FgdcDateConverter

Index.gcmdKeyword	True	False	`/*[local-name() = 'metadata']/idinfo/keywords/`
			`↪theme[themekt=`
			`'GCMD Science Keywords']/themekey/text()`
			
			Processor: SolrField
			Configuration: *fgdc.gcmdKeyword*

Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.keywords	True	True	`/*[local-name() = 'metadata']/idinfo/keywords/` `↪theme/` `themekey/text()	/*[local-name() = 'metadata']/` `idinfo/keywords/place/placekey/text()` Processor: SolrField Configuration: *fgdc.keywords*
Index.geoform	False	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `geoform/text()` Processor: SolrField Configuration: *fgdc.geoform*
Index.genus	True	False	`//taxoncl/taxonrv[../taxonrn="Genus"]/text()` Processor: SolrField Configuration: *fgdc.genus*
Index.kingdom	True	False	`//taxoncl/taxonrv[../taxonrn="Kingdom"]/text()` Processor: SolrField Configuration: *fgdc.kingdom*
Index.order	True	False	`//taxoncl/taxonrv[../taxonrn="Order"]/text()` Processor: SolrField Configuration: *fgdc.order*
Index.phylum	True	False	`//taxoncl/taxonrv[../taxonrn="Phylum"]/text() |` `↪//taxoncl/` `taxonrv[../taxonrn="Division"]/text()` Processor: SolrField Configuration: *fgdc.phylum*

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Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.species	True	False	`//taxoncl/taxonrv[../taxonrn="Species"]/text()` Processor: SolrField Configuration: *fgdc.species*
Index.family	True	False	`//taxoncl/taxonrv[../taxonrn="Family"]/text()` Processor: SolrField Configuration: *fgdc.family*
Index.class	True	False	`//taxoncl/taxonrv[../taxonrn="Class"]/text()` Processor: SolrField Configuration: *fgdc.class*

Index.scientificName	False		`//taxoncl/taxonrv[../taxonrn="Genus"] ->{`
			`↪{[genus] [species]`
			`}}; genus = ../taxonrv/text(); species =␣`
			`↪taxonrv/`
			`text()`
			
			Processor: CommonRootSolrField
			Configuration: *fgdc.scientificName*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.

Index.origin	True	False	`/*[local-name() = 'metadata']/idinfo/citation/`
			`↪citeinfo/`
			`origin/text()`
			
			Processor: SolrField
			Configuration: *fgdc.origin*

Index.placeKey	True	False	`/*[local-name() = 'metadata']/idinfo/keywords/`
			`↪place/`
			`placekey/text()`
			
			Processor: SolrField
			Configuration: *fgdc.placeKey*

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Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.pubDate	False	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `pubdate/text()` Processor: SolrField Configuration: *fgdc.pubDate* Converter: FgdcDateConverter
Index.purpose	False	False	`/*[local-name() = 'metadata']/idinfo/descript/` `↪purpose/` `descendant::text()` Processor: MergeSolrField Configuration: *fgdc.purpose*
Index.title	False	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `title/text()` Processor: SolrField Configuration: *fgdc.title*
Index.webUrl	True	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `onlink/text()` Processor: SolrField Configuration: *fgdc.web_url*
Index.fileID			Processor: ResolveSolrField Configuration: *fgdc.fileID* Notes: SolrField which configures the resolve url for the document being processed. Converter:
Index.text			Processor: AggregateSolrField Configuration: *fgdc.fullText* Converter:

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Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index. presentationCat	False	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `geoform/text()` Processor: SolrField Configuration: *fgdc.presentationCat*
Index.author	False	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `origin/text()` Processor: SolrField Configuration: *fgdc.author*
Index.authorSurName	False	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `origin[1]/text()` Processor: SolrField Configuration: *fgdc.authorSurName*
Index. authorSurNameSort	False	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `origin[1]/text()` Processor: SolrField Configuration: *fgdc.authorSurNameSort*
Index.investigator	True	False	`/*[local-name() = 'metadata']/idinfo/citation/` `↪citeinfo/` `origin/text()` Processor: SolrField Configuration: *fgdc.investigator*
Index.site	True	False	`/*[local-name() = 'metadata']/idinfo/spdom/` `↪descgeog/text()` Processor: SolrField Configuration: *fgdc.site*

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Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source
Index.attributeName	True	False	`//attr/attrlabl/text()` Processor: SolrField Configuration: *fgdc.attributeName*
Index.attributeLabel	True	False	`//attr/attalias/text()` Processor: SolrField Configuration: *fgdc.attributeLabel*
Index.attributeDescription	True	False	`//attr/attrdef/text()` Processor: SolrField Configuration: *fgdc.attributeDescription*

Index.attributeUnit	True	False	`//attr/attrdomv//attrunit/text() | //attr//`
			`↪attrdomv//edomv/`
			`text()`
			
			Processor: SolrField
			Configuration: *fgdc.attributeUnit*

Index.attribute	False		`//attr ->{{[attributeName] [attributeLabel] [`
			`attributeDescription] [attributeUnit]}};`
			`attributeName = attrlabl/text(); attributeLabel`
			`↪=`
			`attalias/text(); attributeDescription = attrdef/`
			`text(); attributeUnit = attrdomv//attrunit/`
			`↪text() |`
			`.//attrdomv//edomv/text()`
			
			Processor: CommonRootSolrField
			Configuration: *fgdc.attributeText*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.

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Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.geohash_1	False		<pre>/*[local-name() = 'metadata']/idinfo/spdom/
			↪bounding ->{{[
			northBoundingCoordinate]␣
			↪[southBoundingCoordinate] [
			eastBoundingCoordinate]␣
			↪[westBoundingCoordinate]}};
			northBoundingCoordinate = northbc/text();
			southBoundingCoordinate = southbc/text();
			eastBoundingCoordinate = eastbc/text();
			westBoundingCoordinate = westbc/text()</pre>
			
			Processor: CommonRootSolrField
			
			Configuration: *fgdc.geohash1*
			
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			
			Converter: GeohashConverter

Index.geohash_2	False		<pre>/*[local-name() = 'metadata']/idinfo/spdom/
			↪bounding ->{{[
			northBoundingCoordinate]␣
			↪[southBoundingCoordinate] [
			eastBoundingCoordinate]␣
			↪[westBoundingCoordinate]}};
			northBoundingCoordinate = northbc/text();
			southBoundingCoordinate = southbc/text();
			eastBoundingCoordinate = eastbc/text();
			westBoundingCoordinate = westbc/text()</pre>
			
			Processor: CommonRootSolrField
			
			Configuration: *fgdc.geohash2*
			
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			
			Converter: GeohashConverter

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Table 1 – continued from previous page

Solr Field	Multi	Dedup	Source

Index.geohash_3	False		`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding ->{{[`
			`northBoundingCoordinate]␣`
			`↪[southBoundingCoordinate] [`
			`eastBoundingCoordinate]␣`
			`↪[westBoundingCoordinate]}};`
			`northBoundingCoordinate = northbc/text();`
			`southBoundingCoordinate = southbc/text();`
			`eastBoundingCoordinate = eastbc/text();`
			`westBoundingCoordinate = westbc/text()`
			
			Processor: CommonRootSolrField
			Configuration: *fgdc.geohash3*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

Index.geohash_4	False		`/*[local-name() = 'metadata']/idinfo/spdom/`
			`↪bounding ->{{[`
			`northBoundingCoordinate]␣`
			`↪[southBoundingCoordinate] [`
			`eastBoundingCoordinate]␣`
			`↪[westBoundingCoordinate]}};`
			`northBoundingCoordinate = northbc/text();`
			`southBoundingCoordinate = southbc/text();`
			`eastBoundingCoordinate = eastbc/text();`
			`westBoundingCoordinate = westbc/text()`
			
			Processor: CommonRootSolrField
			Configuration: *fgdc.geohash4*
			Notes: This bean uses a template populated from additional sources. See configuration for more details.
			Converter: GeohashConverter

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Solr Field	Multi	Dedupe	Source
Index.geohash_5	False		```/*[local-name() = 'metadata']/idinfo/spdom/↪bounding ->{{[northBoundingCoordinate]␣ ↪[southBoundingCoordinate] [eastBoundingCoordinate]␣ ↪[westBoundingCoordinate]}}; northBoundingCoordinate = northbc/text(); southBoundingCoordinate = southbc/text(); eastBoundingCoordinate = eastbc/text(); westBoundingCoordinate = westbc/text()``` Processor: CommonRootSolrField Configuration: *fgdc.geohash5* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter
Index.geohash_6	False		```/*[local-name() = 'metadata']/idinfo/spdom/↪bounding ->{{[northBoundingCoordinate]␣ ↪[southBoundingCoordinate] [eastBoundingCoordinate]␣ ↪[westBoundingCoordinate]}}; northBoundingCoordinate = northbc/text(); southBoundingCoordinate = southbc/text(); eastBoundingCoordinate = eastbc/text(); westBoundingCoordinate = westbc/text()``` Processor: CommonRootSolrField Configuration: *fgdc.geohash6* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter

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Solr Field	Multi	Dedupe	Source
Index.geohash_7	False		```/*[local-name() = 'metadata']/idinfo/spdom/↪bounding ->{{[northBoundingCoordinate]␣↪[southBoundingCoordinate] [eastBoundingCoordinate]␣↪[westBoundingCoordinate]}};northBoundingCoordinate = northbc/text();southBoundingCoordinate = southbc/text();eastBoundingCoordinate = eastbc/text();westBoundingCoordinate = westbc/text()``` Processor: CommonRootSolrField Configuration: *fgdc.geohash7* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter
Index.geohash_8	False		```/*[local-name() = 'metadata']/idinfo/spdom/↪bounding ->{{[northBoundingCoordinate]␣↪[southBoundingCoordinate] [eastBoundingCoordinate]␣↪[westBoundingCoordinate]}};northBoundingCoordinate = northbc/text();southBoundingCoordinate = southbc/text();eastBoundingCoordinate = eastbc/text();westBoundingCoordinate = westbc/text()``` Processor: CommonRootSolrField Configuration: *fgdc.geohash8* Notes: This bean uses a template populated from additional sources. See configuration for more details. Converter: GeohashConverter

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Solr Field	Multi	Dedupe	Source
| *Index.geohash_9* | False | | ```
/*[local-name() = 'metadata']/idinfo/spdom/
↪bounding ->{{[
northBoundingCoordinate]␣
↪[southBoundingCoordinate] [
eastBoundingCoordinate]␣
↪[westBoundingCoordinate]}};
northBoundingCoordinate = northbc/text();
southBoundingCoordinate = southbc/text();
eastBoundingCoordinate = eastbc/text();
westBoundingCoordinate = westbc/text()
```<br><br>Processor: CommonRootSolrField<br>Configuration: *fgdc.geohash9*<br>Notes: This bean uses a template populated from additional sources. See configuration for more details.<br>Converter: GeohashConverter |

24.3 Bean Configurations

24.3.1 fgdc.abstract

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.abstract" class="org.dataone.cn.indexer.parser.MergeSolrField">
    <constructor-arg name="name" value="abstract"/>
    <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/idinfo/
↪descript/abstract/descendant::text()"/>
    <constructor-arg name="delimiter" value=" "/>
    <property name="multivalue" value="false"/>
    <property name="dedupe" value="false"/>
</bean>
```

24.3.2 fgdc.beginDate

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.beginDate" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="beginDate"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/timeperd/timeinfo/rngdates/begdate/text()"/>
        <property name="multivalue" value="false"/>
        <property name="converter" ref="fgdcDateConverter"/>
    </bean>
```

24.3.3 fgdc.contactOrganization

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.contactOrganization" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="contactOrganization"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→distinfo/distrib/cntinfo/cntperp/cntorg/text() | /*[local-name() = 'metadata']/
→distinfo/distrib/cntinfo/cntorgp/cntorg/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="true"/>
    </bean>
```

24.3.4 fgdc.eastBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.eastBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="eastBoundCoord"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/spdom/bounding/eastbc/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

24.3.5 fgdc.westBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.westBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="westBoundCoord"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/spdom/bounding/westbc/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

24.3.6 fgdc.northBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.northBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="northBoundCoord"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/spdom/bounding/northbc/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

24.3.7 fgdc.southBoundCoord

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.southBoundCoord" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="southBoundCoord"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/spdom/bounding/southbc/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="solrLongitudeConverter"/>
    </bean>
```

24.3.8 fgdc.edition

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.edition" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="edition"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citeinfo/edition/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

24.3.9 fgdc.endDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.endDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="endDate"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/timeperd/timeinfo/rngdates/enddate/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="fgdcDateConverter"/>
    </bean>
```

24.3.10 fgdc.gcmdKeyword

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.gcmdKeyword" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="gcmdKeyword"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/keywords/theme[themekt='GCMD Science Keywords']/themekey/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

24.3.11 fgdc.keywords

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.keywords" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="keywords"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/keywords/theme/themekey/text() | /*[local-name() = 'metadata']/idinfo/
↪keywords/place/placekey/text()"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="true"/>
        <property name="disallowedValues">
                <list>
                        <value>none</value>
                </list>
        </property>
    </bean>
```

24.3.12 fgdc.geoform

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.geoform" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="geoform"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/citation/citeinfo/geoform/text()"/>
        <property name="multivalue" value="false"/>
    </bean>
```

24.3.13 fgdc.genus

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.genus" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="genus"/>
        <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
↪Genus&quot;]/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

24.3.14 fgdc.kingdom

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.kingdom" class="org.dataone.cn.indexer.parser.SolrField">
        <constructor-arg name="name" value="kingdom"/>
        <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
↪Kingdom&quot;]/text()"/>
        <property name="multivalue" value="true"/>
    </bean>
```

24.3.15 fgdc.order

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.order" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="order"/>
            <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Order&quot;]/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

24.3.16 fgdc.phylum

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.phylum" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="phylum"/>
            <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Phylum&quot;]/text() | //taxoncl/taxonrv[../taxonrn=&quot;Division&quot;]/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

24.3.17 fgdc.species

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.species" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="species"/>
            <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Species&quot;]/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

24.3.18 fgdc.family

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.family" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="family"/>
            <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Family&quot;]/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

24.3.19 fgdc.class

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.class" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="class"/>
            <constructor-arg name="xpath" value="//taxoncl/taxonrv[../taxonrn=&quot;
→Class&quot;]/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

24.3.20 fgdc.scientificName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.scientificName" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="fgdc.scientificNameRoot">
                    <constructor-arg name="name" value="scientificName"/>
    </bean>
```

24.3.21 fgdc.origin

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.origin" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="origin"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/origin/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

24.3.22 fgdc.placeKey

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.placeKey" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="placeKey"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/keywords/place/placekey/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

24.3.23 fgdc.pubDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.pubDate" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="pubDate"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/pubdate/text()"/>
            <property name="multivalue" value="false"/>
```

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```xml
            <property name="converter" ref="fgdcDateConverter"/>
    </bean>
```

24.3.24 fgdc.purpose

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.purpose" class="org.dataone.cn.indexer.parser.MergeSolrField">
        <constructor-arg name="name" value="purpose"/>
        <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/idinfo/
↪descript/purpose/descendant::text()"/>
        <constructor-arg name="delimiter" value=" "/>
        <property name="multivalue" value="false"/>
        <property name="dedupe" value="false"/>
    </bean>
```

24.3.25 fgdc.title

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.title" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="title"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/citation/citeinfo/title/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

24.3.26 fgdc.web_url

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.web_url" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="webUrl"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/citation/citeinfo/onlink/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

24.3.27 fgdc.fileID

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.fileID" class="org.dataone.cn.indexer.parser.ResolveSolrField">
            <constructor-arg name="name" value="fileID"/>
    </bean>
```

24.3.28 fgdc.fullText

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.fullText" class="org.dataone.cn.indexer.parser.AggregateSolrField">
            <property name="name" value="text"/>
            <property name="solrFields">
                    <list>
                    <ref bean="fgdc.text"/>
            </list>
            </property>
    </bean>
```

24.3.29 fgdc.presentationCat

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.presentationCat" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="presentationCat"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/citation/citeinfo/geoform/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

24.3.30 fgdc.author

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.author" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="author"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/citation/citeinfo/origin/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

24.3.31 fgdc.authorSurName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.authorSurName" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorSurName"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
↪idinfo/citation/citeinfo/origin[1]/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

24.3.32 fgdc.authorSurNameSort

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.authorSurNameSort" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="authorSurNameSort"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/origin[1]/text()"/>
            <property name="multivalue" value="false"/>
    </bean>
```

24.3.33 fgdc.investigator

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.investigator" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="investigator"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/citation/citeinfo/origin/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

24.3.34 fgdc.site

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.site" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="site"/>
            <constructor-arg name="xpath" value="/*[local-name() = 'metadata']/
→idinfo/spdom/descgeog/text()"/>
            <property name="multivalue" value="true"/>
    </bean>
```

24.3.35 fgdc.attributeName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.attributeName" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeName"/>
            <constructor-arg name="xpath" value="//attr/attrlabl/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
    </bean>
```

24.3.36 fgdc.attributeLabel

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.attributeLabel" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeLabel"/>
            <constructor-arg name="xpath" value="//attr/attalias/text()"/>
```

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```
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
    </bean>
```

24.3.37 fgdc.attributeDescription

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.attributeDescription" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeDescription"/>
            <constructor-arg name="xpath" value="//attr/attrdef/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
    </bean>
```

24.3.38 fgdc.attributeUnit

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.attributeUnit" class="org.dataone.cn.indexer.parser.SolrField">
            <constructor-arg name="name" value="attributeUnit"/>
            <constructor-arg name="xpath" value="//attr/attrdomv//attrunit/text() | /
→/attr//attrdomv//edomv/text()"/>
            <property name="multivalue" value="true"/>
            <property name="dedupe" value="false"/>
    </bean>
```

24.3.39 fgdc.attributeText

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.attributeText" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="true" p:root-ref="fgdc.attributeTextRoot">
                    <constructor-arg name="name" value="attribute"/>
    </bean>
```

24.3.40 fgdc.geohash1

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash1" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_1"/>
            <property name="converter" ref="geohashConverter_1"/>
    </bean>
```

24.3.41 fgdc.geohash2

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash2" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_2"/>
            <property name="converter" ref="geohashConverter_2"/>
    </bean>
```

24.3.42 fgdc.geohash3

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash3" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_3"/>
            <property name="converter" ref="geohashConverter_3"/>
    </bean>
```

24.3.43 fgdc.geohash4

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash4" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_4"/>
            <property name="converter" ref="geohashConverter_4"/>
    </bean>
```

24.3.44 fgdc.geohash5

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash5" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_5"/>
            <property name="converter" ref="geohashConverter_5"/>
    </bean>
```

24.3.45 fgdc.geohash6

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
→springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
→id="fgdc.geohash6" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
→p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_6"/>
            <property name="converter" ref="geohashConverter_6"/>
    </bean>
```

24.3.46 fgdc.geohash7

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.geohash7" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_7"/>
            <property name="converter" ref="geohashConverter_7"/>
    </bean>
```

24.3.47 fgdc.geohash8

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.geohash8" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_8"/>
            <property name="converter" ref="geohashConverter_8"/>
    </bean>
```

24.3.48 fgdc.geohash9

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:p="http://www.
↪springframework.org/schema/p" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"␣
↪id="fgdc.geohash9" class="org.dataone.cn.indexer.parser.CommonRootSolrField"␣
↪p:multivalue="false" p:root-ref="fgdc.geohashRoot">
            <constructor-arg name="name" value="geohash_9"/>
            <property name="converter" ref="geohashConverter_9"/>
    </bean>
```

Provenance

Describes parser configuration for: prov20150115RdfXmlSubprocessor

25.1 Format IDs Processed

This parser processes the following DataONE format IDs:

- RDF/XML
  formatId: `http://www.w3.org/TR/rdf-syntax-grammar`

- Object Reuse and Exchange Vocabulary
  formatId: `http://www.openarchives.org/ore/terms`

A full list of DataONE format IDs can be found at https://cn.dataone.org/cn/v2/formats/

25.2 Fields

The following fields in the solr index are populated from values retrieved from this type of metadata document. Note that these are in addition to the information extracted from *System Metadata Parser*.

Solr Field	Multi	Dedup	Source
Index.prov_wasDerivedFrom	False	False	```SELECT (str(?pidValue) as ?pid) (str(?↪wasDerivedFromValue) as ?prov_wasDerivedFrom) FROM <$GRAPH_NAME> WHERE { ?derived_data prov:wasDerivedFrom ?↪primary_data . ?derived_data dcterms:identifier ?↪pidValue . ?primary_data dcterms:identifier ?↪wasDerivedFromValue . } ``` Processor: SparqlField Configuration: *prov20150115.wasDerivedFrom*
Index.prov_wasInformedBy	False	False	```SELECT (str(?pidValue) as ?pid) (str(?↪wasInformedByValue) as ?prov_wasInformedBy) FROM <$GRAPH_NAME> WHERE { ?activity prov:wasInformedBy ↪?previousActivity . ?activity dcterms:identifier ↪?pidValue . ?previousActivity dcterms:identifier ↪?wasInformedByValue . } ``` Processor: SparqlField Configuration: *prov20150115.wasInformedBy*
Index.prov_used	False	False	```SELECT (str(?pidValue) as ?pid) (str(?↪usedValue) as ?prov_used) FROM <$GRAPH_NAME> WHERE { ?activity prov:used ?↪data . ?activity prov:qualifiedAssociation ?↪association . ?association prov:hadPlan ?↪program . ?program dcterms:identifier ?↪pidValue . ?data dcterms:identifier ?↪usedValue . } ``` Processor: SparqlField Configuration: *prov20150115.used*
Index.prov_generated	False	False	```SELECT (str(?pidValue) as ?pid) (str(?```

Chapter 25. Provenance

25.3 Bean Configurations

25.3.1 prov20150115.wasDerivedFrom

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="prov20150115.wasDerivedFrom" class="org.dataone.cn.
↪indexer.annotation.SparqlField">
    <constructor-arg name="name" value="prov_wasDerivedFrom"/>
    <constructor-arg name="query">
        <value>
            <![CDATA[
            PREFIX rdf:     <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
            PREFIX rdfs:    <http://www.w3.org/2000/01/rdf-schema#>
            PREFIX owl:     <http://www.w3.org/2002/07/owl#>
            PREFIX prov:    <http://www.w3.org/ns/prov#>
            PREFIX provone: <http://purl.dataone.org/provone/2015/01/15/ontology#>
            PREFIX ore:     <http://www.openarchives.org/ore/terms/>
            PREFIX dcterms: <http://purl.org/dc/terms/>

            SELECT (str(?pidValue) as ?pid) (str(?wasDerivedFromValue) as ?prov_
↪wasDerivedFrom)
            FROM <$GRAPH_NAME>
            WHERE {

                ?derived_data       prov:wasDerivedFrom ?primary_data .
                ?derived_data       dcterms:identifier  ?pidValue .
                ?primary_data       dcterms:identifier  ?wasDerivedFromValue .


            }
            ]]>
        </value>
    </constructor-arg>
</bean>
```

25.3.2 prov20150115.wasInformedBy

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="prov20150115.wasInformedBy" class="org.dataone.cn.
↪indexer.annotation.SparqlField">
    <constructor-arg name="name" value="prov_wasInformedBy"/>
    <constructor-arg name="query">
        <value>
            <![CDATA[
            PREFIX rdf:     <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
            PREFIX rdfs:    <http://www.w3.org/2000/01/rdf-schema#>
            PREFIX owl:     <http://www.w3.org/2002/07/owl#>
            PREFIX prov:    <http://www.w3.org/ns/prov#>
            PREFIX provone: <http://purl.dataone.org/provone/2015/01/15/ontology#>
            PREFIX ore:     <http://www.openarchives.org/ore/terms/>
            PREFIX dcterms: <http://purl.org/dc/terms/>

            SELECT (str(?pidValue) as ?pid) (str(?wasInformedByValue) as ?prov_
↪wasInformedBy)
            FROM <$GRAPH_NAME>
```

```
        WHERE {

            ?activity              prov:wasInformedBy  ?previousActivity .
            ?activity              dcterms:identifier  ?pidValue .
            ?previousActivity      dcterms:identifier  ?wasInformedByValue .


        }
        ]]>
      </value>
    </constructor-arg>
 </bean>
```

25.3.3 prov20150115.used

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="prov20150115.used" class="org.dataone.cn.indexer.
→annotation.SparqlField">
    <constructor-arg name="name" value="prov_used"/>
    <constructor-arg name="query">
        <value>
            <![CDATA[
            PREFIX rdf:     <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
            PREFIX rdfs:    <http://www.w3.org/2000/01/rdf-schema#>
            PREFIX owl:     <http://www.w3.org/2002/07/owl#>
            PREFIX prov:    <http://www.w3.org/ns/prov#>
            PREFIX provone: <http://purl.dataone.org/provone/2015/01/15/ontology#>
            PREFIX ore:     <http://www.openarchives.org/ore/terms/>
            PREFIX dcterms: <http://purl.org/dc/terms/>

            SELECT (str(?pidValue) as ?pid) (str(?usedValue) as ?prov_used)
            FROM <$GRAPH_NAME>
            WHERE {

                ?activity       prov:used               ?data .
                ?activity       prov:qualifiedAssociation ?association .
                ?association    prov:hadPlan            ?program .
                ?program        dcterms:identifier      ?pidValue .
                ?data           dcterms:identifier      ?usedValue .


            }
            ]]>
        </value>
    </constructor-arg>
 </bean>
```

25.3.4 prov20150115.generated

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="prov20150115.generated" class="org.dataone.cn.
→indexer.annotation.SparqlField">
    <constructor-arg name="name" value="prov_generated"/>
    <constructor-arg name="query">
```

```
        <value>
            <![CDATA[
            PREFIX rdf:     <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
            PREFIX rdfs:    <http://www.w3.org/2000/01/rdf-schema#>
            PREFIX owl:     <http://www.w3.org/2002/07/owl#>
            PREFIX prov:    <http://www.w3.org/ns/prov#>
            PREFIX provone: <http://purl.dataone.org/provone/2015/01/15/ontology#>
            PREFIX ore:     <http://www.openarchives.org/ore/terms/>
            PREFIX dcterms: <http://purl.org/dc/terms/>

            SELECT (str(?pidValue) as ?pid) (str(?generatedValue) as ?prov_generated)
            FROM <$GRAPH_NAME>
            WHERE {

                ?result          prov:wasGeneratedBy      ?activity .
                ?activity        prov:qualifiedAssociation ?association .
                ?association     prov:hadPlan              ?program .
                ?result          dcterms:identifier        ?generatedValue .
                ?program         dcterms:identifier        ?pidValue .


            }
            ]]>
        </value>
    </constructor-arg>
</bean>
```

25.3.5 prov20150115.generatedByProgram

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="prov20150115.generatedByProgram" class="org.
→dataone.cn.indexer.annotation.SparqlField">
    <constructor-arg name="name" value="prov_generatedByProgram"/>
    <constructor-arg name="query">
        <value>
            <![CDATA[
            PREFIX rdf:     <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
            PREFIX rdfs:    <http://www.w3.org/2000/01/rdf-schema#>
            PREFIX owl:     <http://www.w3.org/2002/07/owl#>
            PREFIX prov:    <http://www.w3.org/ns/prov#>
            PREFIX provone: <http://purl.dataone.org/provone/2015/01/15/ontology#>
            PREFIX ore:     <http://www.openarchives.org/ore/terms/>
            PREFIX dcterms: <http://purl.org/dc/terms/>

            SELECT (str(?pidValue) as ?pid) (str(?programPidValue) as ?prov_
→generatedByProgram)
            FROM <$GRAPH_NAME>
            WHERE {

                ?derived_data prov:wasGeneratedBy ?execution .
                ?execution prov:qualifiedAssociation ?association .
                ?association prov:hadPlan ?program .
                ?program dcterms:identifier ?programPidValue .
                ?derived_data dcterms:identifier ?pidValue .
            }
            ]]>
```

```
        </value>
    </constructor-arg>
</bean>
```

25.3.6 prov20150115.generatedByExecution

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="prov20150115.generatedByExecution" class="org.
→dataone.cn.indexer.annotation.SparqlField">
    <constructor-arg name="name" value="prov_generatedByExecution"/>
    <constructor-arg name="query">
        <value>
            <![CDATA[
            PREFIX rdf:     <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
            PREFIX rdfs:    <http://www.w3.org/2000/01/rdf-schema#>
            PREFIX owl:     <http://www.w3.org/2002/07/owl#>
            PREFIX prov:    <http://www.w3.org/ns/prov#>
            PREFIX provone: <http://purl.dataone.org/provone/2015/01/15/ontology#>
            PREFIX ore:     <http://www.openarchives.org/ore/terms/>
            PREFIX dcterms: <http://purl.org/dc/terms/>


            SELECT (str(?pidValue) as ?pid) (str(?executionPidValue) as ?prov_
→generatedByExecution)
            FROM <$GRAPH_NAME>
            WHERE {

                ?derived_data prov:wasGeneratedBy ?execution .
                ?execution dcterms:identifier ?executionPidValue .
                ?derived_data dcterms:identifier ?pidValue .
            }
            ]]>
        </value>
    </constructor-arg>
</bean>
```

25.3.7 prov20150115.generatedByUser

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="prov20150115.generatedByUser" class="org.dataone.
→cn.indexer.annotation.SparqlField">
    <constructor-arg name="name" value="prov_generatedByUser"/>
    <constructor-arg name="query">
        <value>
            <![CDATA[
            PREFIX rdf:     <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
            PREFIX rdfs:    <http://www.w3.org/2000/01/rdf-schema#>
            PREFIX owl:     <http://www.w3.org/2002/07/owl#>
            PREFIX prov:    <http://www.w3.org/ns/prov#>
            PREFIX provone: <http://purl.dataone.org/provone/2015/01/15/ontology#>
            PREFIX ore:     <http://www.openarchives.org/ore/terms/>
            PREFIX dcterms: <http://purl.org/dc/terms/>
```

```
        SELECT (str(?pidValue) as ?pid) ?prov_generatedByUser
        FROM <$GRAPH_NAME>
        WHERE {

            ?derived_data prov:wasGeneratedBy ?execution .
            ?execution prov:qualifiedAssociation ?association .
            ?association prov:agent ?prov_generatedByUser .
            ?derived_data dcterms:identifier ?pidValue .

        }
        ]]>
    </value>
  </constructor-arg>
</bean>
```

25.3.8 prov20150115.usedByProgram

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="prov20150115.usedByProgram" class="org.dataone.cn.
↪indexer.annotation.SparqlField">
    <constructor-arg name="name" value="prov_usedByProgram"/>
    <constructor-arg name="query">
        <value>
            <![CDATA[
            PREFIX rdf:     <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
            PREFIX rdfs:    <http://www.w3.org/2000/01/rdf-schema#>
            PREFIX owl:     <http://www.w3.org/2002/07/owl#>
            PREFIX prov:    <http://www.w3.org/ns/prov#>
            PREFIX provone: <http://purl.dataone.org/provone/2015/01/15/ontology#>
            PREFIX ore:     <http://www.openarchives.org/ore/terms/>
            PREFIX dcterms: <http://purl.org/dc/terms/>

            SELECT (str(?pidValue) as ?pid) (str(?programPidValue) as ?prov_
↪usedByProgram)
            FROM <$GRAPH_NAME>
            WHERE {

                ?execution prov:used ?primary_data .
                ?execution prov:qualifiedAssociation ?association .
                ?association prov:hadPlan ?program .
                ?program dcterms:identifier ?programPidValue .
                ?primary_data dcterms:identifier ?pidValue .

            }
            ]]>
        </value>
    </constructor-arg>
</bean>
```

25.3.9 prov20150115.usedByExecution

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="prov20150115.usedByExecution" class="org.dataone.
↪cn.indexer.annotation.SparqlField">
    <constructor-arg name="name" value="prov_usedByExecution"/>
```

```
    <constructor-arg name="query">
        <value>
            <![CDATA[
            PREFIX rdf:      <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
            PREFIX rdfs:     <http://www.w3.org/2000/01/rdf-schema#>
            PREFIX owl:      <http://www.w3.org/2002/07/owl#>
            PREFIX prov:     <http://www.w3.org/ns/prov#>
            PREFIX provone:  <http://purl.dataone.org/provone/2015/01/15/ontology#>
            PREFIX ore:      <http://www.openarchives.org/ore/terms/>
            PREFIX dcterms:  <http://purl.org/dc/terms/>

            SELECT (str(?pidValue) as ?pid) (str(?executionIdValue) as ?prov_
→usedByExecution)
            FROM <$GRAPH_NAME>
            WHERE {

                ?execution prov:used ?primary_data .
                ?primary_data dcterms:identifier ?pidValue .
                ?execution dcterms:identifier ?executionIdValue .

            }
            ]]>
        </value>
    </constructor-arg>
</bean>
```

25.3.10 prov20150115.usedByUser

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="prov20150115.usedByUser" class="org.dataone.cn.
→indexer.annotation.SparqlField">
    <constructor-arg name="name" value="prov_usedByUser"/>
    <constructor-arg name="query">
        <value>
            <![CDATA[
            PREFIX rdf:      <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
            PREFIX rdfs:     <http://www.w3.org/2000/01/rdf-schema#>
            PREFIX owl:      <http://www.w3.org/2002/07/owl#>
            PREFIX prov:     <http://www.w3.org/ns/prov#>
            PREFIX provone:  <http://purl.dataone.org/provone/2015/01/15/ontology#>
            PREFIX ore:      <http://www.openarchives.org/ore/terms/>
            PREFIX dcterms:  <http://purl.org/dc/terms/>

            SELECT (str(?pidValue) as ?pid) ?prov_usedByUser
            FROM <$GRAPH_NAME>
            WHERE {

                ?execution prov:used ?primary_data .
                ?execution prov:qualifiedAssociation ?association .
                ?association prov:agent ?prov_usedByUser .
                ?primary_data dcterms:identifier ?pidValue .

            }
            ]]>
        </value>
    </constructor-arg>
</bean>
```

25.3.11 prov20150115.wasExecutedByExecution

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="prov20150115.wasExecutedByExecution" class="org.
↪dataone.cn.indexer.annotation.SparqlField">
    <constructor-arg name="name" value="prov_wasExecutedByExecution"/>
    <constructor-arg name="query">
        <value>
            <![CDATA[
            PREFIX rdf:     <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
            PREFIX rdfs:    <http://www.w3.org/2000/01/rdf-schema#>
            PREFIX owl:     <http://www.w3.org/2002/07/owl#>
            PREFIX prov:    <http://www.w3.org/ns/prov#>
            PREFIX provone: <http://purl.dataone.org/provone/2015/01/15/ontology#>
            PREFIX ore:     <http://www.openarchives.org/ore/terms/>
            PREFIX dcterms: <http://purl.org/dc/terms/>

            SELECT (str(?pidValue) as ?pid) (str(?executionIdValue) as ?prov_
↪wasExecutedByExecution)
            FROM <$GRAPH_NAME>
            WHERE {

                ?execution prov:qualifiedAssociation ?association .
                ?association prov:hadPlan ?program .
                ?execution dcterms:identifier ?executionIdValue .
                ?program dcterms:identifier ?pidValue .
            }
            ]]>
        </value>
    </constructor-arg>
</bean>
```

25.3.12 prov20150115.wasExecutedByUser

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="prov20150115.wasExecutedByUser" class="org.dataone.
↪cn.indexer.annotation.SparqlField">
    <constructor-arg name="name" value="prov_wasExecutedByUser"/>
    <constructor-arg name="query">
        <value>
            <![CDATA[
            PREFIX rdf:     <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
            PREFIX rdfs:    <http://www.w3.org/2000/01/rdf-schema#>
            PREFIX owl:     <http://www.w3.org/2002/07/owl#>
            PREFIX prov:    <http://www.w3.org/ns/prov#>
            PREFIX provone: <http://purl.dataone.org/provone/2015/01/15/ontology#>
            PREFIX ore:     <http://www.openarchives.org/ore/terms/>
            PREFIX dcterms: <http://purl.org/dc/terms/>

            SELECT (str(?pidValue) as ?pid) ?prov_wasExecutedByUser
            FROM <$GRAPH_NAME>
            WHERE {

                ?execution prov:qualifiedAssociation ?association .
                ?association prov:hadPlan ?program .
```

```
            ?association prov:agent ?prov_wasExecutedByUser .
            ?program dcterms:identifier ?pidValue .
        }
        ]]>
    </value>
  </constructor-arg>
</bean>
```

25.3.13 prov20150115.instanceOfClass

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="prov20150115.instanceOfClass" class="org.dataone.
→cn.indexer.annotation.SparqlField">
    <constructor-arg name="name" value="prov_instanceOfClass"/>
    <constructor-arg name="query">
        <value>
            <![CDATA[
            PREFIX rdf:     <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
            PREFIX rdfs:    <http://www.w3.org/2000/01/rdf-schema#>
            PREFIX owl:     <http://www.w3.org/2002/07/owl#>
            PREFIX prov:    <http://www.w3.org/ns/prov#>
            PREFIX provone: <http://purl.dataone.org/provone/2015/01/15/ontology#>
            PREFIX ore:     <http://www.openarchives.org/ore/terms/>
            PREFIX dcterms: <http://purl.org/dc/terms/>

            SELECT (str(?pidValue) as ?pid) ?prov_instanceOfClass
            FROM <$GRAPH_NAME>
            WHERE {

                ?subject rdf:type ?prov_instanceOfClass .
                ?subject dcterms:identifier ?pidValue .
            }
            ]]>
        </value>
    </constructor-arg>
</bean>
```

25.3.14 prov20150115.hasDerivations

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="prov20150115.hasDerivations" class="org.dataone.cn.
→indexer.annotation.SparqlField">
    <constructor-arg name="name" value="prov_hasDerivations"/>
    <constructor-arg name="query">
        <value>
            <![CDATA[
            PREFIX rdf:     <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
            PREFIX rdfs:    <http://www.w3.org/2000/01/rdf-schema#>
            PREFIX owl:     <http://www.w3.org/2002/07/owl#>
            PREFIX prov:    <http://www.w3.org/ns/prov#>
            PREFIX provone: <http://purl.dataone.org/provone/2015/01/15/ontology#>
            PREFIX ore:     <http://www.openarchives.org/ore/terms/>
```

```
              PREFIX dcterms: <http://purl.org/dc/terms/>
              PREFIX cito:    <http://purl.org/spar/cito/>

              SELECT (str(?pidValue) as ?pid) (str(?derivedDataPidValue) as ?prov_
→hasDerivations)
              FROM <$GRAPH_NAME>
              WHERE {
                  ?derived_data prov:wasDerivedFrom ?source_data .
                  ?source_data dcterms:identifier ?pidValue .
                  ?derived_data dcterms:identifier ?derivedDataPidValue .
              }
              ]]>
          </value>
      </constructor-arg>
</bean>
```

Dublin Core, Qualified

Describes parser configuration for: qualifiedDublicCoreSubprocessor

26.1 Format IDs Processed

This parser processes the following DataONE format IDs:

- Unknown
  formatId: `http://dublincore.org/schemas/xmls/qdc/2008/02/11/qualifieddc.xsd`

A full list of DataONE format IDs can be found at https://cn.dataone.org/cn/v2/formats/

26.2 Fields

The following fields in the solr index are populated from values retrieved from this type of metadata document. Note that these are in addition to the information extracted from *System Metadata Parser*.

Solr Field	Multi	Dedup	Source
Index.abstract	False	False	`//*[local-name() = 'abstract'][1]/text()` Processor: SolrField Configuration: *dc.abstract*
Index.author	False	False	`//*[local-name() = 'creator'][1]/text()` Processor: SolrField Configuration: *dc.author*
Index.authorSurName	False	False	`//*[local-name() = 'creator'][1]/text()` Processor: SolrField Configuration: *dc.authorSurName*
Index. authorSurNameSort	False	False	`//*[local-name() = 'creator'][1]/text()` Processor: SolrField Configuration: *dc.authorSurNameSort*
Index. contactOrganization	True	True	`//*[local-name() = 'creator']/text()` Processor: SolrField Configuration: *dc.contactOrganization*
Index.investigator	True	True	`//*[local-name() = 'creator']/text()` Processor: SolrField Configuration: *dc.investigator*
Index.origin	True	True	`//*[local-name() = 'creator']/text()` Processor: SolrField Configuration: *dc.origin*
Index.pubDate	False	False	`//*[local-name() = 'dateSubmitted']/text()` Processor: SolrField Configuration: *dc.pubDate* Converter: SolrDateConverter
Index.title	False	False	`(//*[local-name() = 'title'][1]/text())[1]` Processor: SolrField

Chapter 26. Dublin Core, Qualified

26.3 Bean Configurations

26.3.1 dc.abstract

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc.abstract" class="org.dataone.cn.indexer.parser.
↪SolrField">
        <constructor-arg name="name" value="abstract"/>
        <constructor-arg name="xpath" value="//*[local-name() = 'abstract'][1]/
↪text()"/>
    </bean>
```

26.3.2 dc.author

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc.author" class="org.dataone.cn.indexer.parser.
↪SolrField">
        <constructor-arg name="name" value="author"/>
        <constructor-arg name="xpath" value="//*[local-name() = 'creator'][1]/
↪text()"/>
    </bean>
```

26.3.3 dc.authorSurName

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc.authorSurName" class="org.dataone.cn.indexer.
↪parser.SolrField">
        <constructor-arg name="name" value="authorSurName"/>
        <constructor-arg name="xpath" value="//*[local-name() = 'creator'][1]/
↪text()"/>
        <property name="multivalue" value="false"/>
    </bean>
```

26.3.4 dc.authorSurNameSort

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc.authorSurNameSort" class="org.dataone.cn.
↪indexer.parser.SolrField">
        <constructor-arg name="name" value="authorSurNameSort"/>
        <constructor-arg name="xpath" value="//*[local-name() = 'creator'][1]/
↪text()"/>
        <property name="multivalue" value="false"/>
    </bean>
```

26.3.5 dc.contactOrganization

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dc.contactOrganization" class="org.dataone.cn.
→indexer.parser.SolrField">
          <constructor-arg name="name" value="contactOrganization"/>
          <constructor-arg name="xpath" value="//*[local-name() = 'creator']/text()
→"/>
          <property name="multivalue" value="true"/>
          <property name="dedupe" value="true"/>
    </bean>
```

26.3.6 dc.investigator

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dc.investigator" class="org.dataone.cn.indexer.
→parser.SolrField">
          <constructor-arg name="name" value="investigator"/>
          <constructor-arg name="xpath" value="//*[local-name() = 'creator']/text()
→"/>
          <property name="multivalue" value="true"/>
          <property name="dedupe" value="true"/>
    </bean>
```

26.3.7 dc.origin

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dc.origin" class="org.dataone.cn.indexer.parser.
→SolrField">
          <constructor-arg name="name" value="origin"/>
          <constructor-arg name="xpath" value="//*[local-name() = 'creator']/text()
→"/>
          <property name="multivalue" value="true"/>
          <property name="dedupe" value="true"/>
    </bean>
```

26.3.8 dc.pubDate

```xml
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dc.pubDate" class="org.dataone.cn.indexer.parser.
→SolrField">
          <constructor-arg name="name" value="pubDate"/>
          <constructor-arg name="xpath" value="//*[local-name() = 'dateSubmitted']/
→text()"/>
          <property name="converter" ref="dateConverter"/>
    </bean>
```

26.3.9 dc.title

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc.title" class="org.dataone.cn.indexer.parser.
↪SolrField">
            <constructor-arg name="name" value="title"/>
            <constructor-arg name="xpath" value="(//*[local-name() = 'title'][1]/
↪text())[1]"/>
    </bean>
```

26.3.10 dc.keywords

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc.keywords" class="org.dataone.cn.indexer.parser.
↪SolrField">
            <constructor-arg name="name" value="keywords"/>
            <constructor-arg name="xpath" value="//*[local-name() = 'subject']/text()
↪"/>
            <property name="multivalue" value="true"/>
    </bean>
```

26.3.11 dc.beginDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc.beginDate" class="org.dataone.cn.indexer.parser.
↪SolrField">
            <constructor-arg name="name" value="beginDate"/>
            <constructor-arg name="xpath" value="//*[local-name() = 'temporal
↪'][not(@xsi:type='dcterms:Period') and not(@xsi:type='dc:Period') and not(@xsi:type=
↪'Period')]/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

26.3.12 dc.endDate

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
↪org/2001/XMLSchema-instance" id="dc.endDate" class="org.dataone.cn.indexer.parser.
↪SolrField">
            <constructor-arg name="name" value="endDate"/>
            <constructor-arg name="xpath" value="//*[local-name() = 'temporal
↪'][not(@xsi:type='dcterms:Period') and not(@xsi:type='dc:Period') and not(@xsi:type=
↪'Period')]/text()"/>
            <property name="multivalue" value="false"/>
            <property name="converter" ref="dateConverter"/>
    </bean>
```

26.3.13 dc.site

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dc.site" class="org.dataone.cn.indexer.parser.
→SolrField">
        <constructor-arg name="name" value="site"/>
        <constructor-arg name="xpath" value="//*[local-name() = 'spatial
→'][not(@xsi:type = 'dcterms:Box') and not(@xsi:type = 'dc:Box') and not(@xsi:type =
→'Box')]/text()"/>
        <property name="multivalue" value="true"/>
        <property name="dedupe" value="true"/>
    </bean>
```

26.3.14 dc.boxSpatialBoundCoordinates

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dc.boxSpatialBoundCoordinates" class="org.dataone.
→cn.indexer.parser.DublinCoreSpatialBoxBoundingCoordinatesSolrField">
        <constructor-arg name="xpath" value="//*[local-name() = 'spatial
→'][@xsi:type='dcterms:Box' or @xsi:type='dc:Box' or @xsi:type='Box'][1]/text()[1]"/>
    </bean>
```

26.3.15 dc.boxSpatialGeohash

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dc.boxSpatialGeohash" class="org.dataone.cn.
→indexer.parser.DublinCoreSpatialBoxGeohashSolrField">
        <constructor-arg name="xpath" value="//*[local-name() = 'spatial
→'][@xsi:type='dcterms:Box' or @xsi:type='dc:Box' or @xsi:type='Box'][1]/text()[1]"/>
    </bean>
```

26.3.16 dc.fileID

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dc.fileID" class="org.dataone.cn.indexer.parser.
→ResolveSolrField">
        <constructor-arg name="name" value="fileID"/>
    </bean>
```

26.3.17 dc.fullText

```
<bean xmlns="http://www.springframework.org/schema/beans" xmlns:xsi="http://www.w3.
→org/2001/XMLSchema-instance" id="dc.fullText" class="org.dataone.cn.indexer.parser.
→FullTextSolrField">
        <constructor-arg name="name" value="text"/>
        <constructor-arg name="xpath" value="//*/text()"/>
        <property name="combineNodes" value="true"/>
    </bean>
```

OAI-ORE processor

Describes parser configuration for: resourceMapSubprocessor

27.1 Format IDs Processed

This parser processes the following DataONE format IDs:

- Object Reuse and Exchange Vocabulary
  formatId: `http://www.openarchives.org/ore/terms`

A full list of DataONE format IDs can be found at https://cn.dataone.org/cn/v2/formats/

27.2 Fields

The following fields in the solr index are populated from values retrieved from this type of metadata document. Note that these are in addition to the information extracted from *System Metadata Parser*.

27.3 Bean Configurations

Indices and tables

- genindex
- modindex
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Source for these documents and the generator is held in GitHub.

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