



Ministry of Forests and Range

VRIMS

***VRIMS Personal Geodatabase
Structure and Use***

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Introduction

Document Purpose and Scope

The purpose of this document is to describe the structure of a VRIMS personal geodatabase (PGDB), otherwise known as an “extract”. The standards and processes described in this document pertain to version 2.0.5 + of the VRIMS services. These are MS Access databases that are created and populated using a selection/extraction toolset accessing the Ministry’s Vegetation Resource Inventory Management System (VRIMS). PGDBs are the principal means for updating forest cover objects (polygon geometry and attributes) for the Ministry’s Vegetation Resource Inventory (VRI) using the VegCap II toolset.

Chapter 2 provides an overview of the structure of a PGDB as well as some guidelines and rules for their use in the VRIMS environment. The remaining chapters of this document provide column format details and definitions for each of the VRIMS tables found in the PGDB.

Note that a PGDB includes a number of standard ArcMap tables (prefixed with “GDB_”) that are described in Appendix C of this document. Also refer to ESRI ArcGIS 10.1 documentation for more information about these tables.

Related Documentation

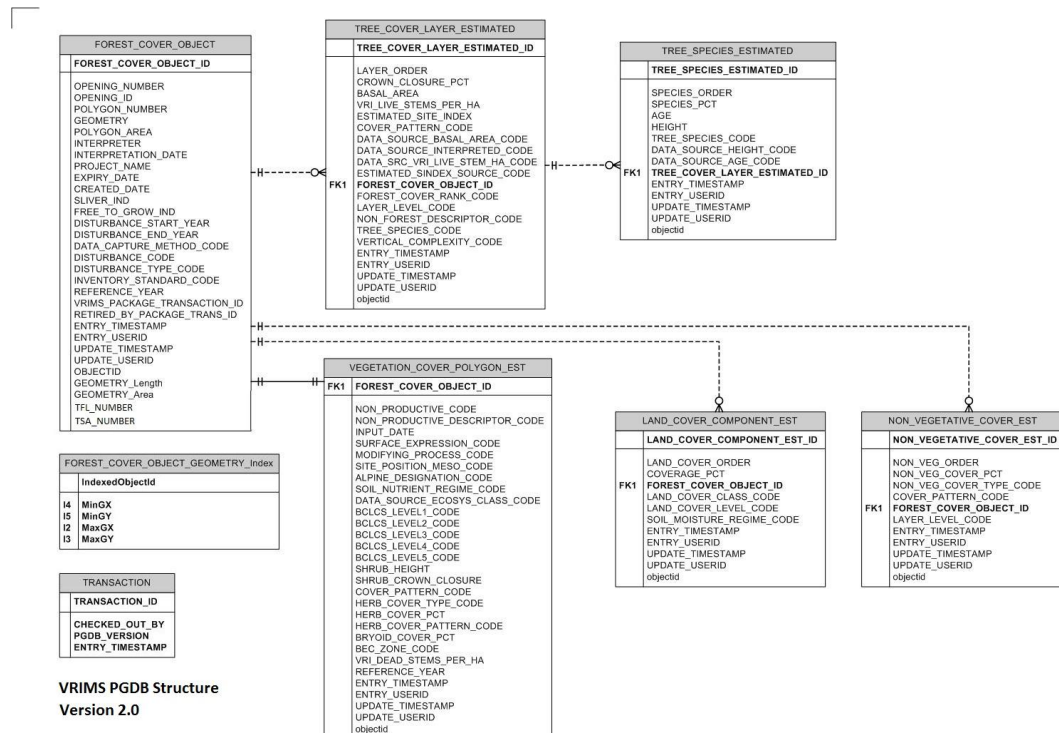
The following documents provide supporting information.

- VRIMS VegCap II User Guide, Version 2.0.0
- VRIMS Vegetation Cover Polygon Validation Rules, Version 2.0.0
- [VRIMS BC Land Classification Cover Business Rules](http://ilmbwww.gov.bc.ca/risc/pubs/teveg/bcland2k2/landcover-02.pdf)
(<http://ilmbwww.gov.bc.ca/risc/pubs/teveg/bcland2k2/landcover-02.pdf>)
- [Vegetation Resources Inventory Photo Interpretation Standards and Quality Assurance Procedures](http://ilmbwww.gov.bc.ca/risc/pubs/teveg/vri_photointer_2k8/Photo_QA_Procedures_Standards_May08.pdf)
(http://ilmbwww.gov.bc.ca/risc/pubs/teveg/vri_photointer_2k8/Photo_QA_Procedures_Standards_May08.pdf)
- [ArcGIS 10.1 Desktop Help](http://resources.arcgis.com/en/help/main/10.1/index.html)
(<http://resources.arcgis.com/en/help/main/10.1/index.html>)

VRIMS Personal Geodatabase Overview

Personal Geodatabase (PGDB) Structure

A given VRIMS PGDB contains data for one or more Forest Cover Objects that is structured in six tables as illustrated in the following diagram. A transaction table is also included for auditing and control purposes.



All PGDB's must be topologically correct and must not contain multipart polygons. All fields must be filled out according to table specified data types and codes (see Appendix B for code tables) including unique identifiers where applicable.

- FOREST COVER_OBJECT:** represents a Forest Cover Polygon and maintains the unique business identification of that polygon. Each polygon represents an area of land identified spatially that is measured by a Vegetation Resource Inventory activity. If using VegCap-II it is auto generated.
- TREE_COVER_LAYER_ESTIMATED:** maintains the unique business identification of a layer, or horizontal stratum, in a stand. Each layer is normally characterized as a distinct canopy containing a common forest cover structure with timber of similar ages (at least 40 years between layers) and heights (at least 10 meters between layers). Layers are assigned from the tallest layer downward.

3. **TREE_SPECIES_ESTIMATED:** maintains the business area supplied sequence of tree species. Normally, tree species are ordered by the Estimated Composition Percentage; however, this attribute represents the implied distinction where the percentage is the same. For example, where Estimated Composition Percentage is equal for two tree species, their supplied sequence implies an order of business preference.
4. **VEGETATION_COVER_POLYGON_EST:** provides the core attribution of a Forest Cover Object associated with the stand or plot, as it was collected (estimated) in the field.
5. **NON_VEGETATIVE_COVER_EST:** maintains the number of a specific instance of a non-vegetative cover (record) as attached to a particular Forest Cover Object.
6. **LAND_COVER_COMPONENT_EST:** maintains the number of specific instances of a land cover component as attached to a Forest Cover Object record. This can be from 1 to 4.

Guidelines and Rules for Using VRIMS PGDBs

A VRIMS Personal Geodatabase (PGDB) has specific guidelines and rules that must be followed in order to allow for successful use in the VRIMS environment. The two critical areas are the Transaction Table with its associated attributes, and the rules surrounding the Forest Cover Object ID in the FOREST_COVER_OBJECT table.

TRANSACTION TABLE

The TRANSACTION table contains the following columns used specifically for VRIMS transaction control. For new VRI inventories the transaction type will always be 'NNT'.

Column	Description
TRANSACTION_ID	Determines the type of Transaction: Net New Transaction (NNT): Use -1, or zero, or null. Net New Results (NNR): Use -2.
CHECKED_OUT_BY	Information as to who created the PGDB.
PGDB_VERSION	The VRIMS Personal GeoDatabase Version Number; currently set at 2.0
ENTRY_TIMESTAMP	The date/time that the PGDB was created.
VRIMS_TRANSACTION_TYPE_CODE	For Net New Transactions, this

	should be set to 'NNT'. For Net New Results, this should be set to "NNR".
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FOREST_COVER_OBJECT TABLE

Each Forest Cover Polygon must have a unique FOREST_COVER_OBJECT_ID (unique to the PGDB) and must contain the minimum project information including Inventory Standard, Interpreter, Project Name, Reference Year, and Interpretation Date. If any attributes of an existing 'F' record are changed; the Inventory Standard Type must be changed from an "F" to a "V" or "I". If using VegCap II for attribute updates, this change will occur automatically.

ArcGIS System tables

By default all PGDBs include specialized system tables that are created by ArcMAP which store geometry and other such display characteristics. These tables are essential for making the PGDB work with the system and with ArcMAP. For more information about these tables and their structure please visit the ArcGIS help website:

[<http://resources.arcgis.com/en/help/main/10.1/index.html>]

Descriptions of these tables are also available in Appendix C.

FOREST_COVER_OBJECT Table

This table represents a Forest Cover Polygon and maintains the unique business identification of that polygon. Each polygon represents an area of land identified spatially that is measured by a Vegetation Resource Inventory activity.

Table Constraints:

"FOREST_COVER_OBJECT_ID" IS NOT NULL

"POLYGON_NUMBER" IS NOT NULL

"INTERPRETER" IS NOT NULL

"INTERPRETATION_DATE" IS NOT NULL

"PROJECT_NAME" IS NOT NULL

"CREATED_DATE" IS NOT NULL

"SLIVER_IND" IS NOT NULL

"FREE_TO_GROW_IND" IS NOT NULL

"INVENTORY_STANDARD_CODE" IS NOT NULL

"ENTRY_TIMESTAMP" IS NOT NULL

"ENTRY_USERID" IS NOT NULL

"UPDATE_TIMESTAMP" IS NOT NULL

"UPDATE_USERID" IS NOT NULL

NAME	TYPE	NULLABLE	COMMENTS	BVR
FOREST_COVER_OBJECT_ID	NUMBER(38)		The unique business identification of a forest cover polygon. Each polygon represents an area of land identified spatially that is measured by a Vegetation Resource Inventory activity.[GRY Description]A required attribute of feature classes and object classes in a geodatabase. This attribute is added to a SDE layer that was not previously created as part of a geodatabase but is now being registered with a geodatabase.	

NAME	TYPE	NULLABLE	COMMENTS	BVR
OPENING_NUMBER	VARCHAR2(4)	Y	The OPENING_NUMBER is from RESULTS. It may or may not be present.	
OPENING_ID	NUMBER(10)	Y	The OPENING_ID is the unique identifier from RESULTS.	
POLYGON_NUMBER	VARCHAR2(16)		The POLYGON_NUMBER is a human readable identifier. Generated by a POLYGON_ALIAS_NAME function.	
POLYGON_AREA	NUMBER(15,3)	Y	The area of a polygon; usually derived from geographic information system processing software in hectares.	2.1.1
INTERPRETER	VARCHAR2(30)	See Vegetation Resources Inventory Photo Interpretation Standards and Quality Assurance Procedures Version 3.2 at http://www.for.gov.bc.ca/hts/vri/standards/index.html	The user id of the individual who provided the estimates for the data associated with each polygon.	2.1.16
INTERPRETATION_DATE	DATE		The date on which the polygon estimates were photo interpreted.	2.1.17
PROJECT_NAME	VARCHAR2(100)	See Vegetation Resources Inventory Photo Interpretation Standards and Quality Assurance Procedures Version 3.2 at http://www.for.gov.bc.ca/hts/vri/standards/index.html	The business assigned name of the project. The name typically reflects a Timber Supply Area, an initiating Agency, or a land area.	2.1.18
EXPIRY_DATE	DATE	Y	The date/time from which the spatial object is retired.	2.1.27
CREATED_DATE	DATE		The date/time from the spatial object was created. This may be different from the date/time the entry containing the spatial object was created.	
SLIVER_IND	VARCHAR2(1)	N	If a polygon is a sliver then the indication will be 'Y'. This flag will only be set if there is no computational means to either merge the sliver with an adjacent polygon, or integrate it by some other means. The slivers will have to be manually identified and manually dealt with. For	

NAME	TYPE	NULLABLE	COMMENTS	BVR
			Net New Transactions this should always be 'N'.	
FREE_TO_GROW_IND	VARCHAR2(1)		Indicates that the polygon has achieved Free To Grow status, which marks the milestone where a stand is capable of growing and should be allowed to do so, without intervention.	
DISTURBANCE_START_YEAR	DATE	Y	Starting year of the disturbance event. If Disturbance Poly.	
DISTURBANCE_END_YEAR	DATE	Y	Ending year of the disturbance event. If Disturbance Poly.	
DATA_CAPTURE_METHOD_CODE	VARCHAR2(10)	Y	A code to identify the method of capture for the feature. e.g. DIGI - Digitized. See Code List.	
DISTURBANCE_CODE	VARCHAR2(10)	Y	Describes the particular event that indicates that a disturbance has occurred. If a disturbance has occurred the code will always be 'DI'. See Code List.	
DISTURBANCE_TYPE_CODE	VARCHAR2(10)	Y	The disturbance history described as the first type of disturbance recorded	
INVENTORY_STANDARD_CODE	VARCHAR2(10)		Code indicating under which inventory standard the data was collected. Values are: "V:" for Vegetation Resources Inventory (VRI), "F" for Forest Inventory Planning (FIP) and "I" for Incomplete (when a full set of VRI attributes is not collected).	2.1.26
REFERENCE_YEAR	NUMBER(4)	Y	The year of the photo or source survey that was used to generate the VRI attributes.	
VRIMS_PACKAGE_TRANSACTION_ID	NUMBER(10)	Y	Numeric identifier that identifies a package made up of polygons. Always null for net new transactions.	
RETIRED_BY_PACKAGE_TRANS_ID	NUMBER(10)	Y	Primary unique numeric identifier for a package	

NAME	TYPE	NULLABLE	COMMENTS	BVR
			made up of polygons.	
ENTRY_TIMESTAMP	DATE		Entry date/time	
ENTRY_USERID	VARCHAR2(30)		Entry by userid	
UPDATE_TIMESTAMP	DATE		Update date/time	
UPDATE_USERID	VARCHAR2(30)		Updated by userid	
GEOMETRY	MDSYS.SDO_GEOMETRY	Y	This is the polygon that represents a vegetation resource polygon. A spatial polygon feature used to store the map component of the Vegetation Cover area. This is a ArcSDE spatial column. NOTE: It can be linear, polygonal or point.	
OBJECT_ID	AutoNumber		Not VRIMS attribute but does exist in PGDB Table. System Table.	
GEOMETRY_AREA	Number (double)		Not VRIMS attribute but does exist in PGDB Table. System Table.	
GEOMETRY_LENGTH	Number (double)		Not VRIMS attribute but does exist in PGDB Table. System Table.	
TFL_NUMBER	VARCHAR2(2)		BC Provincial TFL Code	
TSA_NUMBER	VARCHAR2(2)		BC Provincial TSA Code	

TREE_COVER_LAYER_ESTIMATED Table

This table maintains the unique business identification of a layer, or horizontal stratum, in a stand. Each layer is normally characterized as a distinct canopy containing a common forest cover structure with timber of similar ages (at least 40 years between layers) and heights (at least 10 meters between layers). Layers are assigned from the tallest layer downward.

Table Constraints:

"TREE_COVER_LAYER_ESTIMATED_ID" IS NOT NULL

"FOREST_COVER_OBJECT_ID" IS NOT NULL (Must exist in Forest Cover Object Table)

"ENTRY_TIMESTAMP" IS NOT NULL

"ENTRY_USERID" IS NOT NULL

"UPDATE_TIMESTAMP" IS NOT NULL

"UPDATE_USERID" IS NOT NULL

Name	Type	Nullable	Comments	BVR
TREE_COVER_LAYER_ESTIMATED_ID	NUMBER(10)		Primary unique numerical identifier for an estimated polygon's tree cover layer. Generated in Vegcap only. Otherwise it must be entered manually.	3.1.1
LAYER_ORDER	NUMBER(3)	Y	The order of a layer, or horizontal stratum, in a stand. Layers are assigned from the tallest layer downward. See code list (Appendix B)	
CROWN_CLOSURE_PCT	NUMBER(3)	Y	The photo-estimated percentage of ground area that is covered by the vertically projected crowns of the tree cover and layer within the polygon. It is expressed as a percentage of the entire polygon area.	3.1.7
BASAL_AREA	NUMBER(10,6)	Y	Basal area is the total cross sectional area (at breast height), of all living trees visible to the photo interpreter. It is measured from the dominant, co dominant and high intermediate crown positions, for each tree layer in the polygon. Basal area is expressed as square metres per hectare. It is used for the determination of species composition and timber volume. Note: Dominant trees have well developed crowns that extend above the general level of the trees around them. Co dominant trees have crowns forming the general level of trees around them.	3.1.8

Name	Type	Nullable	Comments	BVR
			High intermediate trees have smaller crowns slightly below, but extending into the general level of trees around them.	
VRI_LIVE_STEMS_PER_HA	NUMBER(8,3)	Y	The average number of living trees visible to the photo interpreter in the dominant, co-dominant and high intermediate crown positions in each tree layer in the polygon. It is expressed as stems per hectare. This attribute is also called stand density.	3.1.10
ESTIMATED_SITE_INDEX	NUMBER(5,3)	Y	Contains a numeric value that equates to a site's value, as compared to the species. Derived site index is an model predicted site index for tree layers with a leading species age greater than 30 years. Site index is the mean height of the dominant and codominant trees will attain at a base index age (50 years) used for the purposes of estimating forest site growth capability. The site index is based on a normalized set of coefficients calibrated to reflect the range of heights for a given tree species.	3.1.5
COVER_PATTERN_CODE	VARCHAR2(10)	Y	Tree cover pattern is a code that describes the spatial distribution of the tree species within the polygon. Tree cover pattern is used to describe the tree layer spatial distribution. Examples include clumps of tree species on rocky outcrops, scattered patches or individual trees or solid, continuous tree cover.	3.1.12
DATA_SOURCE_BASAL_AREA_CODE	VARCHAR2(10)	Y	The source of data used for the interpretation of the basal area. See code list.	3.1.9
DATA_SOURCE_INTERPRETED_CODE	VARCHAR2(10)	Y	A code describing the origin of the information that contributed to the determination of the VRI attributes. . See code list	3.1.3
DATA_SRC_VRI_LIVE_STEM_HA_CODE	VARCHAR2(10)	Y	Code representation of the source of the data that was used for the interpretation of the VRI live stems per hectare, or stand density. . See code list	3.1.11
ESTIMATED_SINDEX_SOURCE_CODE	VARCHAR2(10)	Y	Site index source indicates the method used for obtaining an adjusted site index. The adjusted site index source identifies the method by which the site index is adjusted, indicates the reliability of the adjustment and classifies the source. See code list	3.1.6
FOREST_COVER_OBJECT_ID	NUMBER(38)		The unique business identification of a forest cover polygon. Each polygon represents an area of land identified spatially that is measured by a Vegetation Resource Inventory activity. [GRY Description]A required attribute of feature classes and object classes in a geodatabase. This attribute is added to a SDE layer that was not previously created as part of a geodatabase but is now being registered with a geodatabase.	

Name	Type	Nullable	Comments	BVR
FOREST_COVER_RANK_CODE	VARCHAR2(10)	Y	A numeric designation of the relative importance of the layer component in the stand, as determined by the business area. For Vegetation Cover-originated data, this value is assigned via a business rule. The rule is based on the supplied order of the layer records, as recorded by the interpreter. For FIP originated data, this value is known as the RANK CD, and is explicitly supplied by the interpreter, based on Regional guidelines at the time of interpretation. Rank is used to determine the layer of tree volumes that will be calculated by VDYP. VDYP is the current yield prediction model used in production.	3.1.2
LAYER_LEVEL_CODE	VARCHAR2(10)	Y	Code representation of the layer level. See code list.	
NON_FOREST_DESCRIPTOR_CODE	VARCHAR2(10)	Y	A classification code indicating that the forest cover type is not currently forested, but is capable of supporting commercial forests. This is a FIP classification based attribute only, and is retained for the purposes of business transition from FIP to Vegetation Inventory.	
TREE_SPECIES_CODE	VARCHAR2(10)	Y	A code indicating the type of tree species in the layer. A "leading" species is identified as being the highest percent composition based on basal area or, if a very young stand, the relative number of stems per hectare. Species must be above a specified diameter to be recognized in the species composition of the layer. Species are described in terms of Genus, Species and variety. See code list.	3.1.4
VERTICAL_COMPLEXITY_CODE	VARCHAR2(10)	Y	The subjective classification that describes the form of each tree layer as indicated by the relative uniformity of the height of the forest canopy as it appears on mid-scale aerial photographs. Vertical complexity is influenced by stand age, species (succession as it relates to shade tolerance) and degree and age of past disturbances. The tree height range is calculated as the total difference in height between the tallest and shortest visible dominant, co-dominant, and high intermediate trees. To most adequately represent the tree layer of interest, occasional occurrences of either very tall or very short trees should be ignored so that the vertical complexity indicated is for the majority of stems in the dominant, co-dominant, and high intermediate portion of each tree layer. Vertical complexity is a subjective classification that describes the form of each tree layer as indicated by the relative uniformity of the forest canopy as it appears on midscale aerial photographs.	3.1.13
ENTRY_TIMESTAMP	DATE		Entry date/time	
ENTRY_USERID	VARCHAR2(30)		Entry by userid	

Name	Type	Nullable	Comments	BVR
UPDATE_TIMESTAMP	DATE		Update date/time	
UPDATE_USERID	VARCHAR2(30)		Updated by userid	

TREE_SPECIES_ESTIMATED Table

This table maintains the business area supplied sequence of tree species. Normally, tree species are ordered by the Estimated Composition Percentage; however, this attribute represents the implied distinction where the percentage is the same. For example, where Estimated Composition Percentage is equal for two tree species, their supplied sequence implies an order of business preference.

Table Constraints:

"TREE_SPECIES_ESTIMATED_ID" IS NOT NULL

"SPECIES_ORDER" IS NOT NULL

"SPECIES_PCT" IS NOT NULL

"TREE_COVER_LAYER_ESTIMATED_ID" IS NOT NULL (Must exist in Tree Cover Layer Estimated Table)

"ENTRY_TIMESTAMP" IS NOT NULL

"ENTRY_USERID" IS NOT NULL

"UPDATE_TIMESTAMP" IS NOT NULL

"UPDATE_USERID" IS NOT NULL

Name	Type	Nullable	Comments	BVR
TREE_SPECIES_ESTIMATED_ID	NUMBER(10)		Primary unique numerical identifier for an estimated polygon's tree species.	4.1.1
SPECIES_ORDER	NUMBER(1)		The order of the tree species importance, in terms of the dominance that a species has within the stand. Normally, tree species are ordered by the Estimated Composition Percentage, however, this attribute represents the implied distinction where the percentage is the same. For example, where Estimated Composition Percentage is equal for two tree species, their supplied sequence implies an order of business preference. This attribute was previously represented as the SPECIES_ID in the LRDW, but has been extracted from the primary key to abstract the business meaning of the attribute's value away from	4.1.9

Name	Type	Nullable	Comments	BVR
			the database's physical dependence on it. This allows the primary key of the table to be changed (possibly required by a data fix or new processing method) without changing the business meaning of the SPECIES ORDER value.	
SPECIES_PCT	NUMBER(5,2)		Percentages of the layer that each tree species occupies. For older stands, tree species percentage is based on relative basal area; for younger stands, tree species percentage is based on the number of stems per hectare. Tree species percentage is estimated to the nearest percent for all living trees above a specified diameter.	4.1.3
AGE	NUMBER(4,1)	Y	Age is an average age, weighted by basal area, of the dominant, co-dominant and high intermediate trees for the leading and second species of each tree layer identified. Stand age can be based on an estimate from aerial photographs. Note: Dominant trees have well developed crowns that extend above the general level of the trees around them. Co-dominant trees have crowns forming the general level of trees around them. High intermediate trees have smaller crowns slightly below but extending into the general level of trees around them. This value is not generally present for co-dominant species in the stand.	4.1.4
HEIGHT	NUMBER(5,3)	Y	The average height, weighted by basal area, of the dominant, co-dominant, and high intermediate trees for the leading and second species of each tree layer identified. Note: Dominant trees have well developed crowns that extend above the general level of the trees around them. Co-dominant trees have crowns forming the general level of trees around them. High intermediate trees have smaller crowns slightly below	4.1.5

Name	Type	Nullable	Comments	BVR
			but extending into the general level of trees around them. This value is not generally present for co-dominant species in the stand.	
TREE_SPECIES_CODE	VARCHAR2(10)	Y	A code indicating the type of tree species in the layer. A "leading" species is identified as being the highest percent composition based on basal area or, if a very young stand, the relative number of stems per hectare. Species must be above a specified diameter to be recognized in the species composition of the layer. Species are described in terms of Genus, Species and variety.	4.1.2
DATA_SOURCE_HEIGHT_CODE	VARCHAR2(10)	Y	Code representation for the source of data used for the interpretation of height.	4.1.7
DATA_SOURCE_AGE_CODE	VARCHAR2(10)	Y	The source of data used for the interpretation of age and the derivation of the year of origin.	4.1.6
TREE_COVER_LAYER_ESTIMATED_ID	NUMBER(10)		Primary unique numerical identifier for an estimated polygon's tree cover layer.	3.1.1
ENTRY_TIMESTAMP	DATE		Entry date/time	
ENTRY_USERID	VARCHAR2(30)		Entry by userid	
UPDATE_TIMESTAMP	DATE		Update date/time	
UPDATE_USERID	VARCHAR2(30)		Updated by userid	

VEGETATION_COVER_POLYGON_EST Table

This table describes the core attribution of a Forest Cover Object associated with the stand or plot, as it was collected (estimated) in the field. This represents a middle stage in the lifecycle of a Forest Cover Object, as they are integrated from the staging area into the estimated.

Table Constraints:

"FOREST_COVER_OBJECT_ID" IS NOT NULL (Must exist in Forest Cover Object Table)

"ENTRY_TIMESTAMP" IS NOT NULL

"ENTRY_USERID" IS NOT NULL

"UPDATE_TIMESTAMP" IS NOT NULL

"UPDATE_USERID" IS NOT NULL

Name	Type	Nullable	Comments	BVR
FOREST_COVER_OBJECT_ID	NUMBER(38)		The unique business identification of a forest cover polygon. Each polygon represents an area of land identified spatially that is measured by a Vegetation Resource Inventory activity [GRY Description]. A required attribute of feature classes and object classes in a geodatabase. This attribute is added to a SDE layer that was not previously created as part of a geodatabase but is now being registered with a geodatabase.	
INPUT_DATE	DATE	Y	The date the vegetation cover information was entered into the Provincial Data Base.	2.1.3
VRI_DEAD_STEMS_PER_HA	NUMBER(4)	Y	The number of standing dead trees visible to the photo interpreter in the dominant, co-dominant, and high intermediate crown positions in each tree layer. Snag frequency is expressed as stems per hectare for each tree layer. The snag frequency provides a direct estimate of snags per hectare that can be used for wildlife and fire management. Note: Dominant trees have well-developed crowns that extend above the general level of the trees around them. Co-dominant trees have crowns forming the general level of trees around them. High intermediate trees have smaller crowns slightly below but extending into the general level of trees around them.	2.1.10
SHRUB_HEIGHT	NUMBER(4,1)	Y	The average height of the shrubs contained in the polygon as interpreted from medium scale photography.	2.1.19

Name	Type	Nullable	Comments	BVR
SHRUB_CROWN_CLOSURE	NUMBER(3)	Y	Shrub crown closure is the percentage of ground area covered by the vertically projected crowns of the shrub cover visible to the photo interpreter. Shrub crown closure is expressed as a percentage of the entire polygon.	2.1.20
HERB_COVER_PCT	NUMBER(3)	Y	Herb cover percent is the percentage of ground area covered by herbaceous cover visible to the photo interpreter. Herb cover percent is analogous to tree and shrub crown closures and is expressed as a percentage of the entire polygon.	2.1.23
BRYOID_COVER_PCT	NUMBER(3)	Y	The percent cover of Bryoids: includes bryophytes (mosses, liverworts, hornworts) and non-crustose lichens.	2.1.25
REFERENCE_YEAR	NUMBER(4)	Y	The year of the photo or source survey that was used to generate the VRI attributes.	2.1.28
ALPINE_DESIGNATION_CODE	VARCHAR2(10)	Y	Alpine designation pertains to one category of landscape position (the third level of the B.C. Land Cover Classification Scheme). It describes an interpretation as to whether the tree unit is above or below the tree line, that is, the upper elevation limit of continuous tree, or potential tree if cut- over, cover. Alpine designation contributes to the framework for delineation of ecosystems and habitat.	2.1.7
BEC_ZONE_CODE	VARCHAR2(10)	Y	Biogeoclimatic Classification System is a method to classify and manage sites on an ecosystem-specific basis. There are 14. Together, the three levels Bio, Geo, and Climatic are used to classify any site in BC into an ecosystem. In British Columbia, there are 14 Biogeoclimatic zones identified. Auto-generated at integration.	
DATA_SOURCE_ECOSYS_CLASS_CODE	VARCHAR2(10)	Y	The source of the data used in the interpretation of the ecological attributes (SURFACE EXPRESSION, MODIFYING PROCESS, SITE POSITION MESO, ALPINE DESIGNATION, and SOIL NUTRIENT REGIME) that describe the polygon.	2.1.9
HERB_COVER_TYPE_CODE	VARCHAR2(10)	Y	This set of attributes describes the portion of herb cover that is not obscured by the vertical projection of the crowns of either trees or shrubs. Herbs are defined as non-woody (vascular) plants, including graminoids (sedges, rushes, grasses), forbs (ferns, club mosses, horsetails) and some low, woody species and intermediate life forms.	2.1.22

Name	Type	Nullable	Comments	BVR
MODIFYING_PROCESS_CODE	VARCHAR2(10)	Y	A natural mechanism of weathering, erosion and soil material deposition that result in the modification of surficial materials and landforms. Used for terrain classification, site classification, soil condition, and identification of potential hazards such as avalanches, slope instability and flooding.	2.1.5
NON_PRODUCTIVE_CODE	VARCHAR2(10)	Y	Code representation of the land type that is not able to support commercial logging. Only to be supplied for FIP roll-overs.	
NON_PRODUCTIVE_DESCRIPTOR_CODE	VARCHAR2(10)	Y	Land that is incapable of supporting commercial forests. This relates directly to the FIP attribute, NON PRODUCTIVE DESCRIPTOR and is also utilized for the determination of the BC Land Cover Classification. This is a FIP classification based attribute only, and is retained for the purposes of business transition from FIP to Vegetation Inventory. The current growth projection model, 'VDYP', requires this attribute as a key input variable, and will continue to be utilized for Vegetative Cover until phased out. There is no expectation that this attribute would be updated or created under Vegetation Inventory classification practice.	2.1.2
SITE_POSITION_MESO_CODE	VARCHAR2(10)	Y	A code denoting the relative position of the sampling site within a catchment area with the intent to be consistent within the scale of topography affecting surface water flow. The vertical difference is usually between 3m and 300m, and the surface area generally exceeds 0.5 has in size. Also known as slope position, and meso site position. Definition Source: "Describing Ecosystems in the Field", MOE Manual 11, Province of B.C. 1990, p. 31.	2.1.6
SOIL_NUTRIENT_REGIME_CODE	VARCHAR2(10)	Y	Soil Nutrient Regime (SNR) refers to a code to denote the relative amount of essential soil nutrients, particularly nitrogen, available to vascular plants over a period of several years. Soil nutrient regime is an interpretative attribute that together with soil moisture regime, is used to assist in site series identification.	2.1.8
SURFACE_EXPRESSION_CODE	VARCHAR2(10)	Y	Surface expression refers to the form and patterns of form of the surficial material within the polygon. Given the fact that a canopy of trees often blankets the ground surface, a simple classification attribute was selected. Surface expression is relatively easy to photo interpret on the medium scale photography and together with the attributes "modifying processes" and "site position meso" will provide clues to soil parent material and useful site classification data.	2.1.4

Name	Type	Nullable	Comments	BVR
COVER_PATTERN_CODE	VARCHAR2(10)	Y	Shrub cover pattern is a code that describes the spatial distribution of the Shrub species within the polygon. Shrub cover pattern is used to describe the herb layer spatial distribution. Examples include clumps of shrub species on rocky outcrops, scattered patches or individual herbs or solid, continuous shrub cover.	2.1.21
HERB_COVER_PATTERN_CODE	VARCHAR2(10)	Y	Herb cover pattern is a code that describes the spatial distribution of the herbaceous species within the polygon. Herb cover pattern is used to describe the herb layer spatial distribution. Examples include clumps of herbaceous species on rocky outcrops, scattered patches or individual herbs or solid, continuous herbaceous cover.	2.1.24
BCLCS_LEVEL1_CODE	VARCHAR2(10)	Y	The first level of the BC Land Cover Classification Scheme classifies the presence or absence of vegetation within the boundaries of the polygon. Presence or absence is recognized by the vertical projection of vegetation upon the land base within the polygon.	2.1.11
BCLCS_LEVEL2_CODE	VARCHAR2(10)	Y	The second level of the BC Land Cover Classification Scheme classifies the polygon as to the land cover type: treed or non-treed for vegetated polygons; land or water for non-vegetated polygons.	2.1.12
BCLCS_LEVEL3_CODE	VARCHAR2(10)	Y	The third level of the BC Land Cover Classification Scheme classifies the polygon as to the the location of the polygon relative to elevation and drainage, and is described as either alpine, wetland, or upland. In rare cases, the polygon may be alpine wetland.	2.1.13
BCLCS_LEVEL4_CODE	VARCHAR2(10)	Y	The fourth level of the BC Land Cover Classification Scheme classifies the vegetation types and Non-Vegetated cover types (as described by the presence of distinct types upon the land base within the polygon).	2.1.14
BCLCS_LEVEL5_CODE	VARCHAR2(10)	Y	The fifth level of the BC Land Cover Classification Scheme classifies the vegetation density classes and Non-Vegetated categories.	2.1.15
ENTRY_TIMESTAMP	DATE		Entry date/time	
ENTRY_USERID	VARCHAR2(30)		Entry by userid	
UPDATE_TIMESTAMP	DATE		Update date/time	
UPDATE_USERID	VARCHAR2(30)		Updated by userid	

NON_VEGETATIVE_COVER_EST Table

This table describes the number of a specific instance of a non-vegetative cover (record) as attached to a particular Forest Cover Object polygon.

Table Constraints:

"NON_VEGETATIVE_COVER_EST_ID" IS NOT NULL

"FOREST_COVER_OBJECT_ID" IS NOT NULL (Must exist in Forest Cover Object Table)

"LAYER_LEVEL_CODE" IS NOT NULL

"ENTRY_TIMESTAMP" IS NOT NULL

"ENTRY_USERID" IS NOT NULL

"UPDATE_TIMESTAMP" IS NOT NULL

"UPDATE_USERID" IS NOT NULL

Name	Type	Nullable	Comments	BVR
NON_VEGETATIVE_COVER_EST_ID	NUMBER(10)		Primary unique numerical identifier for an estimated polygon's non-vegetative cover.	5.1.1
NON_VEG_ORDER	NUMBER(3)	Y	The order of a specific instance of a non-vegetative record as attached to a polygon record.	
NON_VEG_COVER_PCT	NUMBER(3)	Y	Area of a polygon that the non-vegetated portion covers, expressed as a percentage.	5.1.2
NON_VEG_COVER_TYPE_CODE	VARCHAR2(10)	Y	Designated type for all of the observable non-vegetated land cover within a polygon.	5.1.4
COVER_PATTERN_CODE	VARCHAR2(10)	Y	Herb cover pattern is a code that describes the spatial distribution of the herbaceous species within the polygon. Herb cover pattern is used to describe the herb layer spatial distribution. Examples include clumps of herbaceous species on rocky outcrops, scattered patches or individual herbs or solid,	5.1.3

Name	Type	Nullable	Comments	BVR
			continuous herbaceous cover.	
FOREST_COVER_OBJECT_ID	NUMBER(38)		The unique business identification of a forest cover polygon. Each polygon represents an area of land identified spatially that is measured by a Vegetation Resource Inventory activity.[GRY Description]A required attribute of feature classes and object classes in a geodatabase. This attribute is added to a SDE layer that was not previously created as part of a geodatabase but is now being registered with a geodatabase.	
LAYER_LEVEL_CODE	VARCHAR2(10)		Code representation of the layer level.	
ENTRY_TIMESTAMP	DATE		Entry date/time	
ENTRY_USERID	VARCHAR2(30)		Entry by userid	
UPDATE_TIMESTAMP	DATE		Update date/time	
UPDATE_USERID	VARCHAR2(30)		Updated by userid	

LAND_COVER_COMPONENT_EST Table

This table maintains the number of specific instances of a land cover component as attached to a Forest Cover Object polygon record. This can be from 1 to 4.

Table Constraints:

"LAND_COVER_COMPONENT_EST_ID" IS NOT NULL

"FOREST_COVER_OBJECT_ID" IS NOT NULL (Must exist in Forest Cover Object Table)

"ENTRY_TIMESTAMP" IS NOT NULL

"ENTRY_USERID" IS NOT NULL

"UPDATE_TIMESTAMP" IS NOT NULL

"UPDATE_USERID" IS NOT NULL

Name	Type	Nullable	Comments	BVR
LAND_COVER_COMPONENT_EST_ID	NUMBER(10)		Primary unique numerical identifier for an estimated polygon's land cover component.	6.1.1
LAND_COVER_ORDER	NUMBER(3)	Y	The order of a specific instance of a land cover component as attached to a polygon record. Auto-generated by VegCap.	
COVERAGE_PCT	NUMBER(3)	Y	The percentage coverage of a polygon occupied by each Land Cover Component. Generally, sizes under 10% will not be used.	6.1.2
FOREST_COVER_OBJECT_ID	NUMBER(38)		The unique business identification of a forest cover polygon. Each polygon represents an area of land identified spatially that is measured by a Vegetation Resource Inventory activity.[GRY Description]A required attribute of feature classes and object classes in a geodatabase. This attribute is added to a SDE layer that was not previously created as part of a geodatabase but is now being registered with a	

Name	Type	Nullable	Comments	BVR
			geodatabase.	
LAND_COVER_CLASS_CODE	VARCHAR2(10)	Y	The codes for the land cover Classification Land cover types within the polygon that contribute to the overall polygon description, but are too small to be delineated using current guidelines, may be described by land cover components. The sub-division of a polygon by a quantified Land Cover Component, allowing nonspatial resolution for modeling of wildlife habitat capability.	6.1.4
LAND_COVER_LEVEL_CODE	VARCHAR2(10)	Y	Same as LAND_COVER_ORDER. To be retired.	
SOIL_MOISTURE_REGIME_CODE	VARCHAR2(10)	Y	A class-based code approximating the average amount of soil water available annually for evapotranspiration by vascular plants, averaged over many years. Soil moisture Regime is an interpretive attribute for estimation of site potential and site series classification. The value is between 0 and 8 or blank.	6.1.3
ENTRY_TIMESTAMP	DATE		Entry date/time	
ENTRY_USERID	VARCHAR2(30)		Entry by userid	
UPDATE_TIMESTAMP	DATE		Update date/time	
UPDATE_USERID	VARCHAR2(30)		Updated by userid	

Document Sign-Off

The undersigned have read and agree with the content of this document.

Marc Rousseau
Project Manager, VRIMS
Forest Analysis and Inventory Branch

Date

Tim Salkeld
VRI Technical Applications Coordinator
Forest Analysis and Inventory Branch

Date

Appendix A: Topology Checking (Warning)

In Arc 10.1, topologies can only be built in ArcCatalog with an ArcGIS for Desktop Standard or ArcGIS for Desktop Advanced license. The layer you want to check must be within a Feature Dataset inside a Personal Geodatabase. Due to the use of the BC Albers Projection for the PGDB files, the cluster tolerance cannot be set smaller than 0.0020605105573774998 meters, which unfortunately, is too large for the topology checking we will be doing – it could theoretically miss some of the potential errors. VRIMS requires topology checking at the 0.0004 meter resolution. Therefore, if topology checking is required, refer to the ArcGIS 10.1 documentation to determine how to apply topology checks at accuracy at least at the 0.0004 meter resolution.

<http://resources.arcgis.com/en/help/main/10.1/index.html#//006200000003000000>

Appendix B: Code Tables

ADJUSTMENT_ATTRIBUTE_CODE	
Code	Description
DE	Disturbance End Year
DS	Disturbance Start Year
DT	Dominant Tree Species Height
LB	Layer Basal Area
LC	Layer Crown Closure
LF	Layer Forest Cover Rank
LL	Layer Level Code
LM	Layer Measured Utilization Level
LS	Layer Estimated Site Index
LSS	Layer Estimated Site Index Species
LT	Layer Trees Per Hectare
PB	Polygon Biogeoclimatic Ecosystem Classification
PC	Polygon Bryoid Cover Percentage
PH	Polygon Herb Cover Percentage
PM	Polygon Measurement Year
PN	Polygon Non Productive Descriptor
PP	Polygon Percentage Stockable Land
PS	Polygon Shrub Cover Percentage
PY	Polygon Yield Factor
TP	Tree Species Percentage
TS	Tree Species
TT	Tree Species Total Ages

ALPINE_DESIGNATION_CODE	
Code	Description
A	Alpine
N	Not Alpine

BCLCS_LEVEL1_CODE	
Code	Description
N	Non-Vegetated
U	Unreported
V	Vegetated

BCLCS_LEVEL2_CODE	
Code	Description
L	Land
N	Non-Treed
T	Treed
W	Water

BCLCS_LEVEL3_CODE	
Code	Description
A	Alpine
U	Upland
W	Wetland

BCLCS_LEVEL4_CODE	
Code	Description
BL	Bryoid - Lichens
BM	Bryoid - Moss
BY	Bryoids
EL	Exposed Land
HE	Herb
HF	Herb - Forbs
HG	Herb - Graminoids
RO	Rock/Rubble
SI	Snow/Ice
SL	Shrub - Low
ST	Shrub - Tall
TB	Treed - Broadleaf
TC	Treed - Coniferous
TM	Treed - Mixed

BCLCS_LEVEL5_CODE	
Code	Description
AP	Airport
BE	Beach
BI	Blockfield
BR	Bedrock
BU	Burned Area
CB	Cutbank
CL	Closed
DE	Dense
ES	Exposed Soils
GL	Glacier
GP	Gravel Pit
LA	Lake
LB	Lava Bed
LL	Landing
LS	Pond or Lake Sediments
MI	Open Pit Mine
MN	Moraine
MU	Mudflat Sediment
MZ	Rubbly Mine Spoils
OC	Ocean
OP	Open
OT	Other

BCLCS_LEVEL5_CODE	
PN	Snow Cover
RE	Reservoir
RI	River/Stream
RM	Reservoir Margin
RN	Railway Surface
RS	River Sediments
RZ	Road Surface
SP	Sparse
TA	Talus
TZ	Tailings
UR	Urban

BEC_ZONE_CODE	
Code	Description
AT	Alpine Tundra
BAFA	Boreal Altai Fescue Alpine
BG	Bunchgrass
BWBS	Boreal White and Black Spruce
CDF	Coastal Douglas Fir
CMA	Coastal Mountain-heather Alpine
CWH	Coastal Western Hemlock
ESSF	Engelmann Spruce - Subalpine Fir
ICH	Interior Cedar - Hemlock
IDF	Interior Douglas Fir
IMA	Interior Mountain-heather Alpine
MH	Mountain Hemlock
MS	Montane Spruce
PP	Ponderosa Pine
SBPS	Sub-Boreal Pine - Spruce
SBS	Sub-Boreal Spruce
SWB	Spruce - Willow - Birch

COVER_PATTERN_CODE	
Code	Description
1	Single to very few (<4) occurrences of limited extent, circular to irregular shape.
2	Single to very few (<4) occurrences of limited extent, linear or elongated shape.
3	Several (>3) sporadic occurrences of limited extent, circular to irregular shape.
4	Several (>3) sporadic occurrences of limited extent, linear or elongated shape.
5	Intimately intermixed units, often with gradational transitions from one to the other.
6	Discontinuous but extensive occurrences, parallel to sub-parallel elongated in shape.
7	Limited continuous occurrence with few inclusions.
8	Continuous occurrence with several inclusions.
9	Continuous occurrence with very few inclusions.

DATA_CAPTURE_METHOD_CODE	
Code	Description
4	Photogrammetric
7	Digitizing
8	Scanning
11	Results
12	Other
14	Medium Resolution Satellite Imagery (greater than 10 m resolution)
15	Low Resolution Satellite Imagery (less than 10 m resolution)
16	LiDAR Imagery (Light Detection and Ranging)
23	Photogrammetric without ground calibration

DATA_SOURCE_AGE_CODE	
Code	Description
0	Photo-interpretation
1	Aircall, High Level Observation
2	Aircall, Low Level Observation
3	Phase 1 photo sample (pre-1990)
4	Inventory Ground Call
5	Standard fixed radius sample (pre-1979)
6	Phase 2 or Phase 3 sample (pre-1990)
7	Silviculture Survey
8	Ground Observation
9	Research plots (e.g. Sx trials, ecological site description)
10	Valuation cruise plot(s)
11	(RESULTS) record from a silv. information system that summarizes the stand structure following an activity or treatment.
12	Disturbance which is classified as NSR. No additional information other than type and year of disturbance.
13	Managed stand sample
14	Ground call, 2 or more points
16	Vegetation sample
17	Vegetation ground call
18	Vegetation air call
19	Natural growth sample
20	Volume and depletion sample
22	Photogrammetrically captured information
25	Pandemic/Catastrophic Event Adjustment (i.e. MPB, Spruce Budworm, etc.)
26	Fire Adjustment
27	Other Model Adjustments (i.e Basal Area)
30	LiDAR Model (i.e. derived) Values are calculated from the LiDar/ground model
31	LiDAR Canopy (calculated) Values are directly measured from LiDAR canopy data
40	LVI derived, values are calculated from the LVI models
41	LVI measured, values are from photo interpretation and/or measured directly from photo
50	Medium Resolution interpreted satellite imagery (greater than 10 m resolution)
51	High Resolution interpreted satellite imagery (less than 10 m Resolution)
60	Low Level, high res digital imagery interpreted (ie Digital Camera System, DCS) values from High res photo interpretation
61	Low Level, high res digital imagery measured (ie Digital Camera System, DCS) meas. directly from high res photography

DATA_SOURCE_BASAL_AREA_CODE	
Code	Description
0	Photo-interpretation
1	Aircall, High Level Observation
2	Aircall, Low Level Observation
3	Phase 1 photo sample (pre-1990)
4	Inventory Ground Call
5	Standard fixed radius sample (pre-1979)
6	Phase 2 or Phase 3 sample (pre-1990)
7	Silviculture Survey
8	Ground Observation
9	Research plots (e.g. Sx trials, ecological site description)
10	Valuation cruise plot(s)
11	(RESULTS) record from a silv. information system that summarizes the stand structure following an activity or treatment.
12	Disturbance which is classified as NSR. No additional information other than type and year of disturbance.
13	Managed stand sample
14	Ground call, 2 or more points
16	Vegetation sample
17	Vegetation ground call
18	Vegetation air call
19	Natural growth sample
20	Volume and depletion sample
22	Photogrammetrically captured information
25	Pandemic/Catastrophic Event Adjustment (i.e. MPB, Spruce Budworm, etc.)
26	Fire Adjustment
27	Other Model Adjustments (i.e Basal Area)
30	LiDAR Model (i.e. derived) Values are calculated from the LiDar/ground model
31	LiDAR Canopy (calculated) Values are directly measured from LiDAR canopy data
40	LVI derived, values are calculated from the LVI models
41	LVI measured, values are from photo interpretation and/or measured directly from photo
50	Medium Resolution interpreted satalite imagery (greater than 10 m resolution)
51	High Resolution interpreted satellite imagery (less than 10 m Resolution)
60	Low Level, high res digital imagery interpreted(ie Digital Camera System, DCS) values from High res photo interpretation
61	Low Level, high res digital imagery measured(ie Digital Camera System, DCS) meas. directly from high res photography

DATA_SOURCE_ECOSYS_CLASS_CODE	
Code	Description
0	Photo-interpretation
1	Aircall, High Level Observation
2	Aircall, Low Level Observation
3	Phase 1 photo sample (pre-1990)
4	Inventory Ground Call
5	Standard fixed radius sample (pre-1979)
6	Phase 2 or Phase 3 sample (pre-1990)
7	Silviculture Survey
8	Ground Observation
9	Research plots (e.g. Sx trials, ecological site description)

10	Valuation cruise plot(s)
11	(RESULTS) record from a silv. information system that summarizes the stand structure following an activity or treatment.
12	Disturbance which is classified as NSR. No additional information other than type and year of disturbance.
13	Managed stand sample
14	Ground call, 2 or more points
16	Vegetation sample
17	Vegetation ground call
18	Vegetation air call
19	Natural growth sample
20	Volume and depletion sample
22	Photogrammetrically captured information
25	Pandemic/Catastrophic Event Adjustment (i.e. MPB, Spruce Budworm, etc.)
26	Fire Adjustment
27	Other Model Adjustments (i.e Basal Area)
30	LiDAR Model (i.e. derived) Values are calculated from the LiDar/ground model
31	LiDAR Canopy (calculated) Values are directly measured from LiDAR canopy data
40	LVI derived, values are calculated from the LVI models
41	LVI measured, values are from photo interpretation and/or measured directly from photo
50	Medium Resolution interpreted satalite imagery (greater than 10 m resolution)
51	High Resolution interpreted satellite imagery (less than 10 m Resolution)
60	Low Level, high res digital imagery interpreted(ie Digital Camera System, DCS) values from High res photo interpretation
61	Low Level, high res digital imagery measured(ie Digital Camera System, DCS) meas. directly from high res photography

DATA_SOURCE_HEIGHT_CODE	
Code	Description
0	Photo-interpretation
1	Aircall, High Level Observation
2	Aircall, Low Level Observation
3	Phase 1 photo sample (pre-1990)
4	Inventory Ground Call
5	Standard fixed radius sample (pre-1979)
6	Phase 2 or Phase 3 sample (pre-1990)
7	Silviculture Survey
8	Ground Observation
9	Research plots (e.g. Sx trials, ecological site description)
10	Valuation cruise plot(s)
11	(RESULTS) record from a silv. information system that summarizes the stand structure following an activity or treatment.
12	Disturbance which is classified as NSR. No additional information other than type and year of disturbance.
13	Managed stand sample
14	Ground call, 2 or more points
16	Vegetation sample
17	Vegetation ground call
18	Vegetation air call
19	Natural growth sample
20	Volume and depletion sample
22	Photogrammetrically captured information
25	Pandemic/Catastrophic Event Adjustment (i.e. MPB, Spruce Budworm, etc.)

DATA_SOURCE_HEIGHT_CODE	
26	Fire Adjustment
27	Other Model Adjustments (i.e Basal Area)
30	LiDAR Model (i.e. derived) Values are calculated from the LiDar/ground model
31	LiDAR Canopy (calculated) Values are directly measured from LiDAR canopy data
40	LVI derived, values are calculated from the LVI models
41	LVI measured, values are from photo interpretation and/or measured directly from photo
50	Medium Resolution interpreted satalite imagery (greater than 10 m resolution)
51	High Resolution interpreted satellite imagery (less than 10 m Resolution)
60	Low Level, high res digital imagery interpreted(ie Digital Camera System, DCS) values from High res photo interpretation
61	Low Level, high res digital imagery measured(ie Digital Camera System, DCS) meas. directly from high res photography

DATA_SOURCE_INTERPRETED_CODE	
Code	Description
0	Photo-interpretation
1	Aircall, High Level Observation
2	Aircall, Low Level Observation
3	Phase 1 photo sample (pre-1990)
4	Inventory Ground Call
5	Standard fixed radius sample (pre-1979)
6	Phase 2 or Phase 3 sample (pre-1990)
7	Silviculture Survey
8	Ground Observation
9	Research plots (e.g. Sx trials, ecological site description)
10	Valuation cruise plot(s)
11	(RESULTS) record from a silv. information system that summarizes the stand structure following an activity or treatment.
12	Disturbance which is classified as NSR. No additional information other than type and year of disturbance.
13	Managed stand sample
14	Ground call, 2 or more points
16	Vegetation sample
17	Vegetation ground call
18	Vegetation air call
19	Natural growth sample
20	Volume and depletion sample
22	Photogrammetrically captured information
25	Pandemic/Catastrophic Event Adjustment (i.e. MPB, Spruce Budworm, etc.)
26	Fire Adjustment
27	Other Model Adjustments (i.e Basal Area)
30	LiDAR Model (i.e. derived) Values are calculated from the LiDar/ground model
31	LiDAR Canopy (calculated) Values are directly measured from LiDAR canopy data
40	LVI derived, values are calculated from the LVI models
41	LVI measured, values are from photo interpretation and/or measured directly from photo
50	Medium Resolution interpreted satalite imagery (greater than 10 m resolution)
51	High Resolution interpreted satellite imagery (less than 10 m Resolution)
60	Low Level, high res digital imagery interpreted(ie Digital Camera System, DCS) values from High res photo interpretation
61	Low Level, high res digital imagery measured(ie Digital Camera System, DCS) meas. directly from high res photography

DATA_SRC_VRI_LIVE_STEM_HA_CODE	
Code	Description
0	Photo-interpretation
1	Aircall, High Level Observation
2	Aircall, Low Level Observation
3	Phase 1 photo sample (pre-1990)
4	Inventory Ground Call
5	Standard fixed radius sample (pre-1979)
6	Phase 2 or Phase 3 sample (pre-1990)
7	Silviculture Survey
8	Ground Observation
9	Research plots (e.g. Sx trials, ecological site description)
10	Valuation cruise plot(s)
11	(RESULTS) record from a silv. information system that summarizes the stand structure following an activity or treatment.
12	Disturbance which is classified as NSR. No additional information other than type and year of disturbance.
13	Managed stand sample
14	Ground call, 2 or more points
16	Vegetation sample
17	Vegetation ground call
18	Vegetation air call
19	Natural growth sample
20	Volume and depletion sample
22	Photogrammetrically captured information
25	Pandemic/Catastrophic Event Adjustment (i.e. MPB, Spruce Budworm, etc.)
26	Fire Adjustment
27	Other Model Adjustments (i.e Basal Area)
30	LiDAR Model (i.e. derived) Values are calculated from the LiDar/ground model
31	LiDAR Canopy (calculated) Values are directly measured from LiDAR canopy data
40	LVI derived, values are calculated from the LVI models
41	LVI measured, values are from photo interpretation and/or measured directly from photo
50	Medium Resolution interpreted satalite imagery (greater than 10 m resolution)
51	High Resolution interpreted satelite imagery (less than 10 m Resolution)
60	Low Level, high res digital imagery interpreted(ie Digital Camera System, DCS) values from High res photo interpretation
61	Low Level, high res digital imagery measured(ie Digital Camera System, DCS) meas. directly from high res photography

DISTURBANCE_CODE	
Code	Description
DI	Disturbance

DISTURBANCE_TYPE_CODE	
Code	Description
A	Animal Damage
AB	Bear
AC	Cattle
AD	Deer
AE	Elk
AH	Hare or Rabbit

DISTURBANCE_TYPE_CODE	
AM	Moose
AP	Porcupine
AS	Squirrel
AV	Vole
AX	Birds
AZ	Beaver
B	Wildfire
BE	Escape Burn
BG	Ground Fire
BR	Range Burn
BW	Wildlife Burn
C	Cone and Seed Insects
CAH	Cone Resin Midge (Asynapta hopkinsi)
CBC	Fir (Fd) Cone Moth (Barbara colfaxiana)
CBX	Fir Cone Moth (Barbara sp.)
CCP	(Camptomyia pseudotsugae)
CDC	Spruce (Sx) Cone Gall Midge (Kaltenbachiola(Dasineura) canadensis)
CDD	Fir Seed Midge (Kaltenbachiola(Dasineura) abiesemia)
CDR	Spruce (Sx) Cone Axis Midge (Kaltenbachiola(Dasineura) rachiphaga)
CDX	Kaltenbachiola(Dasineura) Midges (Kaltenbachiola(Dasineura) spp.)
CEA	Fir Cone Maggot (Earomyia abietum)
CEB	(Earomyia barbara)
CEQ	(Earomyia aquilonia)
CEX	Earomyia Maggots (Earomyia spp.)
CFP	Fir (Fd) Cone Beetle (Ernobius punctulatus)
CHX	Budworms (Choristoneura spp.)
CIA	Fir Coneworm (Dioryctria abietivorella)
CIP	Fir (Fd) Coneworm (Dioryctria pseudotsugella)
CIR	Spruce (Sx) Coneworm (Dioryctria reniculelloides)
CIS	Pine Coneworm (Dioryctria rossi)
CIV	Ponderosa pine (Py) Coneworm (Dioryctria auranticella)
CIX	Coneworms (Dioryctria spp.)
CLO	Western Conifer Seed Bug (Leptoglossus occidentalis)
CMA	Ponderosa pine (Py) Seed Chalcid (Megastigmus albifrons)
CMC	Spruce (Sx) Seed Chalcid (Megastigmus piceae)
CML	Subalpine fir (Bl) Seed Chalcid (Megastigmus lasiocarpae)
CMP	Fir Seed Chalcid (Megastigmus pinus)
CMR	(Megastigmus rafni)
CMS	Fir (Fd) Seed Chalcid (Megastigmus spermotrophus)
CMT	Hemlock (Hw) W Seed Chalcid (Megastigmus tsugae)
CMX	Seed Chalcids (Megastigmus spp.)
CNP	Pine Cone Beetle (Conophthorus ponderosae)
CPS	(Pineus similis)
CRX	Cone Scale Midges (Resseliella spp.)
CSN	Spiral Spruce Cone Borer (Strobilomyia neanthracina)
CTO	Fir (Fd) Cone Gall Midge (Contarinia oregonensis)

DISTURBANCE_TYPE_CODE	
CTW	Fir (Fd) Cone Scale Midge (Contarinia washingtonensis)
CVP	White pine (Pw) Cone Borer (Eucosma ponderosa)
CVR	Lodgepole pine (Pl) Cone Borer (Eucosma recissoriana)
CYC	Spruce (Sx) Seed Midge (Mayetiola carpophaga)
CYP	Ponderosa pine (Py) Seedworm (Cydia piperana)
CYS	Spruce (Sx) Seedworm (Cydia strobilella)
CYT	Cedar (Cw) Cone Midge (Mayetiola thujae)
CYX	Seedworms (Cydia spp.)
D	Diseases
DB	broom rust
DBF	fir broom rust (Melampsorella caryophyllacearum)
DBS	spruce broom rust (Chrysomyxa arctostaphyli)
DD	Stem Rot
DDA	White Mottled Rot (Ganoderma applanatum)
DDB	birch trunk rot (Fomes fomentarius)
DDC	Brown Cubical Rot of Birch (Piptoporus betulinus)
DDD	sulfur fungus (Laetiporus sulphureus)
DDE	Rust Red Stringy Rot (Echindontium tinctorium)
DDF	brown crumbly rot (Fomitopsis pinicola)
DDG	Sterile Conk Trunk Rot of Birch (Inonotus obliquus)
DDH	hardwood trunk rot (Phellinus ignarius)
DDO	cedar brown pocket rot (Poria sericeomollis)
DDP	Red Ring Rot (Phellinus pini)
DDQ	quinine conk rot (Fomitopsis officinalis)
DDS	Schweinitzii Butt Rot (Phaeolus schweinitzii)
DDT	Aspen Trunk Rot (Phellinus tremulae)
DF	foliage disease
DFA	western pine aster rust (Coleosporium asterum)
DFB	Delphinella Needle Cast (Delphinella sp.)
DFC	large-spored spruce-labrador tea rust (Chrysomyxa ledicola)
DFD	spruce needle cast (Lirula macrospora)
DFE	elytroderma needle cast (Elytroderma deformans)
DFF	Marssonina Leaf Blights (Marssonina sp.)
DFG	Cottonwood Leaf Rust (Melampsora occidentalis)
DFH	larch needle cast (Hypodermella laricis)
DFI	Linospora Leaf Blotch (Linospora tetraspora)
DFK	Septoria Leaf Spot (Septoria populicola)
DFL	Pine needle cast (Lophodermella concolor)
DFM	larch needle blight (Meria laricis)
DFP	fir fireweed rust (Pucciniastrum epilobi)
DFR	Douglas-fir needle cast (Rhabdocline pseudotsugae)
DFS	redband needle blight (Mycosphaerella ScirrhiaY pini)
DFT	Sirococcus Tip Blight (sirococcus strobilinus)
DL	Disease Caused Dieback
DLD	dermea canker (Dermea pseudotsugae)
DLF	red flag disease (Potebniomyces balsamicola)

DISTURBANCE_TYPE_CODE	
DLP	phomopsis canker (<i>Phomopsis lokoyae</i>)
DLS	sydowia (<i>Sclerophoma</i>) tip dieback (<i>Sclerophoma pithyophila</i>)
DLV	aspen-poplar twig blight (<i>Venturia</i> spp.)
DM	Dwarf Mistletoe
DMF	Douglas-fir Dwarf Mistletoe (<i>Arceuthobium douglasii</i>)
DMH	Hemlock Dwarf Mistletoe (<i>Arceuthobium tsugense</i>)
DML	Larch Dwarf Mistletoe (<i>Arceuthobium laricis</i>)
DMP	Lodgepole Pine Dwarf Mistletoe (<i>Arceuthobium americanum</i>)
DR	Root Disease
DRA	Armillaria Root Disease (<i>Armillaria ostoyae</i>)
DRB	Black Stain Root Disease (<i>Leptographium wagenieri</i>)
DRC	Laminated Root Rot (cedar strain) (<i>Phellinus weirii</i>)
DRL	Laminated Root Rot (<i>Inonotus sulphurascens</i>)
DRN	Annosus Root Disease (<i>Heterobasidion annosum</i>)
DRR	Rhizina Root Disease (<i>Rhizina undulata</i>)
DRT	Tomentosus Root Rot (<i>Inonotus tomentosus</i>)
DS	Stem Diseases (Cankers and Rusts)
DSA	Atropellis Canker (Lodgepole Pine) (<i>Atropellis piniphila</i>)
DSB	White Pine Blister Rust (<i>Cronartium ribicola</i>)
DSC	Comandra Blister Rust (<i>Cronartium comandrae</i>)
DSE	sooty bark canker (<i>Encoelia pruinosa</i>)
DSG	Western Gall Rust (<i>Endocronartium harknessii</i>)
DSH	hypoxylon canker (<i>Hypoxylon mammatum</i>)
DSP	cryptosphaeria canker (<i>Cryptosphaeria populina</i>)
DSR	ceratocystis canker (<i>Ceratocystis fimbriata</i>)
DSS	Stalactiform Blister Rust (<i>Cronartium coleosporioides</i>)
DST	target canker (<i>Nectria galligena</i>)
DSY	cytospora canker (<i>Cytospora chrysosperma</i>)
I	Insects
IA	Aphids
IAB	Balsam Woolly Adelgid (<i>Adelges piceae</i>)
IAC	Giant Conifer Aphid (<i>Cinara</i> species)
IAG	Cooley Spruce Gall Adelgid (<i>Adelges cooleyi</i>)
IAL	Larch (Lw) Cone Woolly Aphid (<i>Adelges lariciatus</i>)
IAS	Green Spruce Aphid (<i>Elatobium abietinum</i>)
IB	Bark Beetles
IBB	Western Balsam Bark Beetle (<i>Dryocoetes confusus</i>)
IBD	Douglas-fir Beetle (<i>Dendroctonus pseudotsugae</i>)
IBE	Silver Fir Beetle (<i>Pseudohylesinus grandis</i>)
IBF	Fir Engraver Beetle (<i>Scolytus ventralis</i>)
IBH	Hylurgops Beetle (<i>Hylurgops rugipennis</i>)
IBI	Engraver Beetles (<i>Ips</i> species)
IBL	Lodgepole Pine Beetle (<i>Dendroctonus murrayanae</i>)
IBM	Mountain Pine Beetle (<i>Dendroctonus ponderosae</i>)
IBP	twig beetles (<i>Pityogenes</i> , <i>Pityophthorus</i> spp)
IBR	Fir Root Beetle (<i>Pseudohylesinus granulatus</i>)

DISTURBANCE_TYPE_CODE	
IBS	Spruce Beetle (<i>Dendroctonus rufipennis</i>)
IBT	red turpentine beetle (<i>Dendroctonus valens</i>)
IBW	western pine beetle (<i>Dendroctonus brevicomis</i>)
ID	Defoliators
ID1	Leaf Beetles (<i>Chrysomela</i> spp)
ID2	Bruce Spanworm (<i>Operophtera bruceata</i>)
ID3	Winter Moth (<i>Operophtera brumata</i>)
ID4	Cottonwood Sawfly (<i>Nematus currani</i>)
ID5	Fall Webworm (<i>Hyphantria cunea</i>)
ID6	Aspen Leaf Miner (<i>Phyllocristis populiella</i>)
ID7	Woolly Alder Sawfly (<i>Eriocampa ovata</i>)
ID8	Aspen Leaf Roller
ID9	Birch Leaf Skeletonizer (<i>Buccatrix</i> sp.)
IDA	Black Army Cutworm (<i>Actebia fennica</i>)
IDB	Two-Year Budworm (<i>Choristoneura biennis</i>)
IDC	Larch Casebearer (<i>Coleophora laricella</i>)
IDD	western winter moth (<i>Erranis tiliaria vancouverensis</i>)
IDE	Spruce Budworm (<i>Choristoneura fumiferana</i>)
IDF	Forest Tent Caterpillar (<i>Malacosoma disstria</i>)
IDG	Greenstriped Forest Looper (<i>Melanolophia imitata</i>)
IDH	Western Blackheaded Budworm (<i>Acleris gloverana</i>)
IDI	pine needle sheath miner (<i>Zellaria haimbachi</i>)
IDJ	Gray forest looper (<i>Caripeta divista</i>)
IDK	Northern Tent Caterpillar (<i>Malacosoma californicum</i>)
IDL	Western Hemlock Looper (<i>Lambdina fiscellaria lugubrosa</i>)
IDM	Gypsy Moth (<i>Lymantria dispar</i>)
IDN	birch leaf miner (<i>Fenusa pusilla</i>)
IDO	Filament bearer (<i>Nematocampa fimentaria</i>)
IDP	larch sawfly (<i>Pristophora erichsoni</i>)
IDQ	Hemlock Needle Miner (<i>Epinotia tsugana</i>)
IDR	alder sawfly (<i>Eriocampa ovata</i>)
IDS	Conifer Sawflies
IDT	Douglas-fir Tussock Moth (<i>Orgyia pseudotsugata</i>)
IDU	satin moth (<i>Leucoma salicis</i>)
IDV	Variegated Cutworm (<i>Peridroma saucia</i>)
IDW	Western Spruce Budworm (<i>Choristoneura occidentalis</i>)
IDX	large aspen tortrix (<i>Choristoneura conflictana</i>)
IDZ	Western False Hemlock Looper (<i>Nepytia freemani</i>)
IEA	Unidentified Aspen Defoliation
IEB	Hemlock Sawfly (<i>Neodiprion tsugae</i>)
IEC	Larch Budmoth (<i>Zairaphera improbana</i>)
IED	Larch Looper (<i>Semiothis sexmaculata</i>)
IEF	Cottonwood Leaf Skeletonizer (<i>Phyllonoryctes apparella</i>)
IEG	Lodgepole pine sawfly (<i>Neodiprion</i> sp.)
IEH	Phantom Hemlock Looper (<i>Nepytia phantasmaria</i>)
IEI	Saddleback Looper (<i>Ectropis crepuscularia</i>)

DISTURBANCE_TYPE_CODE	
IEJ	Willow leafminer (<i>Micrurapteryx salicifoliella</i>)
IS	Shoot Insects
ISA	Bronze Birch Borer (<i>Agrilus anxius</i>)
ISB	Western Cedar Borer (<i>Trachykele blondeli</i>)
ISC	Poplar Borer (<i>Saperda calcarata</i>)
ISE	European Pine Shoot Moth (<i>Rhyacionia buoliana</i>)
ISG	gouty pitch midge (<i>Cecidomyia piniinopsis</i>)
ISP	Pitch Nodule Moths (<i>Petrova</i> species)
ISQ	sequoia pitch moth (<i>Vespa mima sequoiae</i>)
ISS	western pine shoot borer (<i>Eucosma sonomana</i>)
ISW	Poplar and Willow Borer (<i>Cryptorhynchus lapathi</i>)
IW	Weevils
IWC	Conifer Seedling Weevil (<i>Steremnius carinatus</i>)
IWM	Magdalis Species
IWP	Lodgepole pine Terminal Weevil (<i>Pissodes terminalis</i>)
IWS	White Pine Weevil (on spruce) (<i>Pissodes strobi</i>)
IWW	Warrens Root Collar Weevil (<i>Hylobius warreni</i>)
IWY	Cylindrocopturus weevil (<i>Cylindrocopturus</i> spp.)
IWZ	Yosemite bark weevil (<i>Pissodes schwartzii</i>)
L	Logging
M	Mite Damage (<i>Trisetacus</i> spp.)
N	Non-Biological (Abiotic) Injuries
NB	Fire
ND	Drought
NF	Flooding
NG	Frost
NGC	frost crack
NGH	Frost Heaved
NGK	Shoot/Bud Frost Kill
NH	Hail
NK	Fumekill
NL	lightning
NN	Road Salt
NR	Redbelt
NS	Slide
NW	Windthrow
NWS	windthrow - soil failure
NWT	windthrow - treatment or harvest related
NY	Snow or Ice (includes snow press)
NZ	Sunscald
P	Cone and Seedling Fungal Pathogens
PAX	(<i>Alternaria</i> spp.)
PBC	Gray Mould (<i>Botrytis cinerea</i>)
PCD	(<i>Cylindrocarpon destructans</i>)
PCF	Seed or Cold Fungus (<i>Caloscypha fulgens</i>)
PCP	Inland Spruce Cone Rust (<i>Chrysomyxa pirolata</i>)

DISTURBANCE_TYPE_CODE	
PDT	Cedar Leaf Blight (<i>Didymascella thujina</i>)
PFX	(<i>Fusarium</i> spp.)
PPG	Damping-Off Disease (<i>Phoma glomerata</i>)
PPX	(<i>Penicillium</i> spp.)
PSS	Sirococcus Blight (<i>Sirococcus strobilinus</i>)
PTX	(<i>Trichothecium</i> spp.)
R	Site rehabilitation
T	Treatment Injuries
TC	Chemical injury
TL	Logging wounds
TM	other mechanical damage (non-logging)
TP	Planting (incorrectly planted)
TPM	Poor Planting Microsite
TR	Pruning wound
TT	Thinning or Spacing wound
U	Damage Unknown
V	Problem Vegetation
VH	Herbaceous Competition
VP	Vegetation Press
VS	Shrub Competition
VT	Tree Competition

ESTIMATED_SINDEX_SOURCE_CODE	
Code	Description
A	Site index from adjacent stand
C	SI from Site Index Curve
E	SI from Biogeoclimatic Ecosystem Classification
H	SI from stand before harvest
I	SI from growth intercept
M	SI from G, M, P, L site class conversion
O	SI from provincial SIBEC rollover, Nov 1998
S	Site index assigned by District Silviculture Section

FOREST_COVER_RANK_CODE	
Code	Description
1	Rank 1

HERB_COVER_TYPE_CODE	
Code	Description
HE	Herb
HF	Herb - Forbs
HG	Herb - Graminoids

INVENTORY_STANDARD_CODE	
Code	Description
F	FIP Data collected to FIP Standards

I	Veg Data Incomplete - Full set of VRI Attributes not collected
V	Veg Data collected to Veg Standards
L	Veg Data Captured using various emerging technologies such as (LVI, LiDAR, etc)

LAND_COVER_CLASS_CODE	
Code	Description
AP	Airport
BE	Beach
BI	Blockfield
BL	Bryoid Lichens
BM	Bryoid - Moss (bryophytes)
BR	Bedrock
BU	Burned Area
BY	Bryoid
CB	Cutbank
DW	Down Dead Wood
EL	Exposed Land
ES	Exposed Soil
GL	Glacier
GP	Gravel Pit
HE	Herb
HF	Herb Forbs
HG	Herb Graminoids
LA	Lake
LB	Lava Bed
LL	Landing
LS	Pond or Lake Sediments
MI	Open Pit Mine
MN	Moraine
MU	Mudflat Sediment
MZ	Rubbly Mine Spoils
OC	Ocean
OT	Other
PN	Snow Cover
RE	Reservoir
RI	River/Stream
RM	Reservoir Margin
RN	Railway
RO	Rock/Rubble
RS	River Sediments
RZ	Road Surface
SI	Snow/Ice
SL	Shrub Low
ST	Shrub Tall
TA	Talus
TB	Treed Broadleaf

LAND_COVER_CLASS_CODE	
TC	Treed Coniferous
TM	Treed Mixed
TZ	Tailings
UR	Urban

LAND_COVER_LEVEL_CODE	
Code	Description
1	First specific instance of a land cover component as attached to a polygon record
2	Second specific instance of a land cover component as attached to a polygon record
3	Third specific instance of a land cover component as attached to a polygon record
4	All other specific instances of a land cover component as attached to a polygon record

LAYER_LEVEL_CODE	
Code	Description
S	Silviculture Layer
1	Tallest Layer
2	Second Tallest Layer
3	Third Tallest Layer
4	Fourth Tallest Layer
5	Fifth Tallest Layer
6	Sixth Tallest Layer
7	Seventh Tallest Layer
8	Eighth Tallest Layer
9	Ninth Tallest Layer
D	Dead Layer

LAYER_SUMMARIZATION_CODE	
Code	Description
1	Single Layer
2	Two Layers

MODIFYING_PROCESS_CODE	
Code	Description
A	Avalanching
B	River Channeling
F	Mass Movements
N	None
U	Flooding
V	Gully Erosion

NON_FOREST_DESCRIPTOR_CODE	
Code	Description
NC	Non Commercial
NCBR	Non Commercial Brush
NP	Non-productive
NSR	Not Sufficiently Restocked

NTA	No Typing Available
-----	---------------------

NON_PRODUCTIVE_CODE	
Code	Description
0	No Non Productive Description Identified
1	Icefield
2	Alpine
3	Rock
6	Gravel Pit
7	Sand
9	Clay Bank
10	Alpine Forest(with species etc.)
11	Non-Productive Brush
12	Non-Productive
13	Non-Productive Burn
15	Lake
16	Tidal Flat
18	Gravel Bar
25	River
26	Mud Flat
35	Swamp
42	Clearing
54	Urban/Roads
60	Hayfield
62	Meadow
63	Open Range
64	Non-Applicable (salt water)

NON_PRODUCTIVE_DESCRIPTOR_CODE	
Code	Description
A	Alpine
AF	Alpine Forest(with species etc.)
C	Cultivated
CL	Clay Bank
G	Gravel Bar
GR	Gravel Pit
ICE	Icefield
L	Lake
M	Meadow
MUD	Mud Flat
NA	Non-Applicable
NP	Non-Productive
NPBR	Non-Productive Brush
NPBU	Non-Productive Burn
NPF	Non-Productive Forest(with species etc.)
NTA	No Typing Available
OR	Open Range

P	Hayfield
R	Rock
RIV	River
S	Swamp
SAND	Sand
TIDE	Tidal Flat
U	Urban/Roads

NON_VEG_COVER_TYPE_CODE	
Code	Description
AP	Airport
BE	Beach
BI	Blockfield
BR	Bedrock
BU	Burned Area
CB	Cutbank
DW	Down Dead Wood
ES	Exposed Soil
GL	Glacier
GP	Gravel Pit
LA	Lake
LB	Lava Bed
LL	Landing
LS	Pond or Lake Sediments
MI	Open Pit Mine
MN	Moraine
MU	Mudflat Sediment
MZ	Rubbly Mine Spoils
OC	Ocean
OT	Other
PN	Snow Cover
RE	Reservoir
RI	River/Stream
RM	Reservoir Margin
RN	Railway
RS	River Sediments
RZ	Road Surface
TA	Talus
TZ	Tailings
UR	Urban

PROJECTION_LAYER_CODE	
Code	Description
P	Primary Projection Layer
V	Veteran Projection Layer

SITE_POSITION_MESO_CODE

Code	Description
C	Crest
D	Depression
F	Flat (Level)
L	Lower Slope
M	Middle Slope
T	Toe
U	Upper Slope

SOIL_MOISTURE_REGIME_CODE	
Code	Description
0	Very Xeric
1	Xeric
2	Subxeric
3	Submesic
4	Mesic
5	Subhygric
6	Hygric
7	Subhydric
8	Hydric

SOIL_NUTRIENT_REGIME_CODE	
Code	Description
A	Very Poor
B	Poor
C	Medium
D	Rich
E	Very Rich
F	Ultra rich (saline, excess accumulations of variety of salts)

SURFACE_EXPRESSION_CODE	
Code	Description
C	Cone
D	Depression
F	Fan
H	Hummock(s)
M	Rolling
N	None
P	Plain
R	Ridge(s)
T	Terrace(s)
U	Undulating

TREE_SPECIES_CODE	
Code	Description – common name (alias)
A	ASPEN, COTTENWOOD or POPLAR
AC	Poplar
ACB	Balsam Poplar
ACT	Black Cottonwood
AD	Southern Cottonwood
AT	Trembling Aspen
AX	Poplar hybrid
B	FIR (Balsam)
BA	Amabilis Fir
BB	Balsam Fir
BC	White Fir
BG	Grand Fir
BL	Subalpine Fir
BM	Shasta Red Fir
BP	Noble Fir
C	CEDAR
CW	Western Red Cedar
D	ALDER
DR	Red Alder
E	BIRCH
EA	Alaska Paper Birch
EE	European Birch
EP	Paper Birch (white)
ES	Silver Birch (swamp)
EW	Water Birch
EXP	Alaska x Paper Birch hybrid
EY	Yellow Birch
F	DOUGLAS FIR
FD	Douglas Fir
FDC	Coastal Douglas Fir
FDI	Interior Douglas Fir
G	DOGWOOD
GP	Pacific Dogwood (western flowering)
H	HEMLOCK
HM	Mountain Hemlock
HW	Western Hemlock
HXM	Mountain x Western Hemlock hybrid
J	JUNIPER
JR	Rocky Mtn. Juniper
JS	Seaside Juniper
K	CASCARA
KC	Cascara
L	LARCH
LA	Alpine Larch
LD	Dahurian Larch

TREE_SPECIES_CODE	
LS	Siberian Larch
LT	Tamarack
LW	Western Larch
M	MAPLE
MB	Bigleaf Maple (broadleaf)
ME	Box Elder
MN	Norway Maple
MS	Sycamore Maple
MV	Vine Maple
OA	Incense Cedar
OB	Giant Sequoia
OC	Coast Redwood
OD	European Mountain Ash
OE	Siberian Elm (Southern Elm)
OF	Common Pear
OG	Oregon Ash
OH	White Ash
OI	Shagbark Hickory
OJ	Tree-of-heaven
OK	Japanese Walnut
P	PINE
PA	Whitebark Pine
PF	Limber Pine
PJ	Jack Pine
PL	Lodgepole Pine
PLC	Shore Pine (coast)
PLI	Lodgepole Pine (interior)
PM	Monterey Pine
PR	Red Pine
PS	Sugar Pine
PW	Western White Pine
PXJ	Lodgepole x Jack Pine hybrid
PY	Ponderosa Pine (yellow)
Q	OAK
QE	English Oak
QG	Garry Oak
QW	White Oak
R	ARBUTUS
RA	Arbutus (menziesii)
S	SPRUCE
SB	Black Spruce
SE	Engelmann Spruce
SN	Norway Spruce
SS	Sitka Spruce
SW	White Spruce
SX	Spruce hybrid

TREE_SPECIES_CODE	
SXL	Sitka x White
SXS	Sitka x unknown hybrid
SXW	Engelmann x White
T	YEW
TW	Western Yew
U	APPLE
UA	Apple
UP	Pacific Crab Apple
V	CHERRY
VB	Bitter Cherry
VP	Pin Cherry
VS	Sweet Cherry
VV	Choke Cherry
W	WILLOW
WA	Peachleaf Willow (Barclay's)
WB	Bebb's Willow
WD	Pussy Willow (gray-leaved)
WP	Pacific Willow
WS	Scouler's Willow
WT	Sitka Willow (tea-leaved)
X	unknown
XC	unknown conifer
XH	unknown hardwood
Y	CYPRESS
YC	Yellow Cedar
YP	Port Orford Cedar
Z	other tree, not on list
ZC	other conifer
ZH	other hardwood

VERTICAL_COMPLEXITY_CODE	
Code	Description
1	Very uniform
2	Uniform
3	Moderately uniform
4	Non-uniform
5	Very non-uniform

VRIMS_AUDIT_STATE_CODE	
Code	Description
AUT	Automatically Accepted
DEF	Deferred
MAN	Manually Accepted
NAU	Not Audited
REJ	Rejected

VRIMS_ERROR_CONTEXT_CODE	
Code	Description
POLY	Polygon
SRVC	Service
TRAN	Transaction

VRIMS_ERROR_LEVEL_CODE	
Code	Description
ERR	Error
INFO	Information
WARN	Warning

VRIMS_ERROR_TYPE_CODE	
Code	Description
BRV	Business Rule Validation
DAT	Database
PRO	Processing Error
SPA	Spatial

VRIMS_PROCESSING_STATE_CODE	
Code	Description
BI	Being Integrated
BP	Being Prepared
CO	Checked Out
FI	Failed Integration
FP	Failed Preparation
FPJ	Failed Projection
FR	Failed Replication
INBOX	Inbox
INT	Integrated
MI	Marked for Integration
MP	Marked for Purge
MS	Marked for Resubmit
MT	Marked for Retry
NEW	New
PG	Purged
PRE	Prepared
PROJ	Projected
REI	Replicated
REJ	Rejected
RS	Resubmit

VRIMS_SERVICE_CODE	
Code	Description
CS	Cleanup Service
INT	Integration Service
PROJ	Projection Service
REP	Replication Service
RP	Results Preparation Service
VP	Veg Preparation Service

VRIMS_SERVICE_STATE_CODE	
Code	Description
ERR	Halted on Error
PRO	Processing
IDLE	Idle

VRIMS_SYSTEM_MODE_CODE	
Code	Description
AUTO	Automatic
MAN	Manual
PROJ	Projection
REP	Replication
SB	Standby

VRIMS_SYSTEM_STATE_CODE	
Code	Description
CM	Changing Mode
ERR	Halted on Error
RUN	Running
ST	Starting Up
WAIT	Waiting for Operating Window

VRIMS_TRANSACTION_TYPE_CODE	
Code	Description
ADJ	Adjustment
NNT	Net New Transaction
REI	Reinventory
RES	Results
ROT	Read Only Transaction

Appendix C: PGDB System Table Descriptions

GDB_ANNOSYMBOLS

The GDB_ANNOSYMBOLS table contains feature class annotation.

Field name	Field type	Description
ID	int	Primary key
SYMBOL	image	Stores the annotation symbology Nulls allowed

GDB_ATTRRULES

The GDB_ATTRRULES table contains the attribute rules in the geodatabase.

Field name	Field type	Description
RuleID	int	Identification number of the attribute rule; corresponds to the RuleID column in the GDB_VALIDRULES table. Primary key
Subtype	int	Subtype code associated with the rule
FieldName	varchar(32)	Field with which the rule is associated
DomainName	varchar(160)	Name assigned to the attribute domain in the geodatabase; references DomainName field in the GDB_DOMAINS table

GDB_CODEDDOMAINS

The GDB_CODEDDOMAINS table contains values for each coded-value domain.

Field name	Field type	Description
DomainID	int	Unique identifier of the domain; corresponds to the ID field in the GDB_DOMAINS table. Primary key
CodedValues	image	Contains the set of coded values and their descriptions

GDB_DATABASELOCKS

Field name	Field type	Description
LockID	int	
LockType	int	

UserName	memo	
MachineName	memo	

GDB_DEFAULTVALUES

The GDB_DEFAULTVALUES table contains the default values for fields at the subtype or object class level.

Field name	Field type	Description
ClassID	int	The object class ID; foreign key to the ID field of the GDB_OBJECTCLASSES table
FieldName	varchar(32)	The name of the field to which the default value applies
Subtype	int	Subtype code for which the default value is specified for a particular field
DefaultString	varchar(160)	The text that is the default value for a field that is a string type Nulls allowed
DefaultNumber	numeric	The numeric value that is the default for a field that is an integer type. Nulls Allowed

GDB_DOMAINS

The GDB_DOMAINS table contains the attribute constraints associated with attribute rules of the GDB_ATTRRULES table.

Field name	Field type	Description
ID	int	Unique identifier of the domain
		Primary key
Owner	varchar(32)	User who created the attribute domain
DomainName	varchar(160)	Name assigned to the attribute domain in the geodatabase
Description	varchar(255)	Optional text describing the attribute domain Nulls allowed
DomainType	int	Code indicating whether this is a range (1) or coded value (2) domain

FieldType	int	Code indicating what type of field the domain applies to 0 = Short integer 1 = Long integer 2 = Float 3 = Double 4 = Text 5 = Date
MergePolicy	int	Code indicating the policy to use to assign to the resultant feature when two features are merged: 1 = sum values—The attribute of the feature that results from a merge will be the sum of the values of the two original (premerge) features. 2 = geometry weighted—The attribute of the feature that results from a merge is the weighted average of the values of the attributes of the original (premerge) features. The average is based on the original features' geometry. 3 = default value—The attribute of the feature created as a result of the merge will be the same as the default value of the feature class or subtype. (Note: This is the only merge policy value available for nonnumeric fields and coded value domains)
SplitPolicy	int	Code indicating the policy to be used for assigning attributes to the features that result from splitting one feature: 1 = geometry ratio—The attributes of the features resulting from the split are a ratio of the original feature's (presplit) value. The ratio is based on the ratio in which the geometry is divided by the split. 2 = duplicate—The attribute of the features resulting from the split are the same as the original object's (presplit) attribute value. 3 = default value—The attributes of features resulting from the split take on the default value for the attribute as defined in the feature class or subtype.

GDB_EDGECONNRULES

[The GDB_EDGECONNRULES table contains one record per edge connectivity rule in a geometric network.](#)

Field name	Field type	Description
RuleID	int	The unique ID for a rule in the geodatabase and foreign key to the ID field in the GDB_VALIDRULES table
FromClassID	int	The Object Class ID of the from feature class and the foreign key to the ID in the GDB_GEOMNETWORKS table
FromSubtype	int	The subtype of the from edge feature class
ToClassID	int	The Object Class ID of the to feature class and the foreign key to the ID in the GDB_GEOMNETWORKS table
ToSubtype	int	The subtype of the to edge feature class
Junctions	image	Contains information related to the junction feature class

GDB_EXTENSIONS

The GDB_Extensions table stores the extensions registered with this geodatabase.

Field name	Field type	Description
ID	int	Unique identifier of the workspace extension Primary key
Name	varchar(160)	Name of the workspace extension
CLSID	varchar(38)	GUID that uniquely identifies the extension of an object class

GDB_FEATURECLASSES

The GDB_FEATURECLASSES table contains information on all the feature classes in the geodatabase.

Field name	Field type	Description
ObjectClassID	int	Foreign key to the ID field in the GDB_OBJECTCLASSES table
FeatureType	int	Code representing the type of feature 1 = point, multipoint, line, polygon, or multipatch 7 = junctions 8 = simple edges 10 = complex edges 11 = annotation 13 = dimension 14 = raster
GeometryType	int	Code representing the type of geometry of the feature class: 1 = point 2 = multipoint 3 = line 4 = polygon (including anno and dimension) 9 = multipatch
ShapeField	varchar(32)	Name of the shape field in the feature class
GeomNetworkID	int	Foreign key to ID field in the GDB_GeomNetworks table Nulls allowed
GraphID	int	Foreign key to ID GDB_Networks table Nulls allowed

GDB_FEATUREDATASET

The GDB_FEATUREDATASET table tracks information about feature classes grouped into datasets in the geodatabase. These include feature datasets, raster datasets, replica datasets, terrain datasets, survey datasets, and network datasets.

Field name	Field type	Description
ID	int	Uniquely identifies the feature dataset Primary key

DatabaseName	varchar(32)	The name of the geodatabase in which the feature dataset resides
Owner	varchar(32)	User who created the feature dataset
Name	varchar(160)	Name of the feature dataset
SRID	int	Spatial reference ID number; foreign key to SDE_spatial_references table

GDB_FIELDINFO

The GDB_FIELDINFO table contains the field name, default domain names values and default string and number values for specific attribute fields associated with an object class.

Field name	Field type	Description
ClassID	int	Foreign key to the ID field in the GDB_OBJECTCLASSES table
FieldName	varchar(160)	Name of the field in the table
AliasName	varchar(160)	Alternate name assigned to the field; aliases can be altered after field creation, the field name cannot. Nulls allowed
ModelName	varchar(160)	Alternate name assigned to the field used to identify a type of field without requiring a hard coded name Nulls allowed
DefaultDomainName	varchar(160)	Name of the domain associated with the field Nulls allowed
DefaultValueString	varchar(160)	If the field is type text, the default value assigned to it Nulls allowed
DefaultValueNumber	numeric	If the field is a numeric type, the default value assigned to it Nulls allowed
IsRequired	Integer	0 (is not a required field) or 1 (is a required field)
IsSubtypeFixed	Integer	Denotes whether subtype is set for the field 0 = yes 1 = no
IsEditable	Integer	0 (not editable) or 1 (editable)

GDB_GEOMCOLUMNS		
Field name	Field type	Description
TableName	text	
FieldName	text	
ShapeType	long int	
ExtentLeft	double	
ExtentBottom	double	
ExtentRight	double	
ExtentTop	double	
IdxOriginX	double	
IdxOriginY	double	
IdxGridSize	double	
SRID	long int	
HasZ	yes/no	
HasM	yes/no	

GDB_JNCONNRULES		
The GDB_JNCONNRULES contains one record per junction connectivity rule in a geometric network.		
Field name	Field type	Description
RuleID	int	Primary key, the unique ID for a rule in a geodatabase and the foreign key to the ID field in the GDB_VALIDRULES table
EdgeClassID	int	The Object Class ID of the edge feature class and the foreign key to the ID field in the GDB_GEOMNETWORKS table
EdgeSubtype	int	The subtype of the edge feature class
EdgeMinCard	int	The minimum edge cardinality (The minimum number of edges to which a junction can connect)
EdgeMaxCard	int	The maximum edge cardinality (The maximum number of edges to which a junction can connect)
JunctionClassID	int	The Object Class ID of the junction feature class and the foreign key to the ID field in the GDB_GEOMNETWORKS table
JunctionSubtype	int	The subtype of the junction feature class

JunctionMinCard	int	The minimum junction cardinality (the minimum number of junctions to which an edge can connect)
JunctionMaxCard	int	The maximum junction cardinality (The maximum number of junctions to which an edge can connect)
IsDefault	int	Will contain a value of 0 or 1 indicating if a junction is a default junction and has been created automatically nulls allowed

GDB_NETDATASETS		
Field name	Field type	Description
ID	Autonumber	
DatabaseName	text	
Owner	text	
Name	text	
DatasetID	long int	
Properties	OLE Object	

GDB_OBJECTCLASSES		
The GDB_OBJECTCLASSES contains all of the object classes in the geodatabase. Object classes in the geodatabase include feature classes, relationship classes, raster catalogs, topologies, and stand-alone tables.		
Field name	Field type	Description
ID	int	Unique identifier for the object class Primary key
DatabaseName	varchar(32)	The name of the geodatabase in which the object class was created
Owner	varchar(32)	User who owns the object class
Name	varchar(160)	Name of the object class

AliasName	varchar(160)	Alternative name of the object class Nulls allowed
ModelName	varchar(38)	Alternate name of the object class; used to identify the type of entity without requiring a hard coded name. Nulls allowed
CLSID	varchar(38)	GUID that uniquely identifies the type of object class.
EXTCLSID	varchar(38)	GUID that uniquely identifies the extension of an object class Nulls allowed
EXTPROPS	image	Stores the properties of the associated class extension Nulls allowed
SubtypeField	varchar(32)	Name of the field in the object class for defining subtypes Nulls allowed
DatasetID	int	Foreign key to the ID field in the GDB_FEATUREDATASET table Nulls allowed

GDB_RANGEDOMAINS

The GDB_RANGEDOMAINS table contains the range of values for each range domain.

Field name	Field type	Description
DomainID	int	Foreign key to the ID field in the GDB_DOMAINS table
MinValue	numeric	The lowest allowable value in the range
MaxValue	numeric	The greatest allowable value in the range

GDB_RASTERCATALOGS

The GDB_RASTERCATALOGS table stores a reference to each raster catalog in the geodatabase.

Field name	Field type	Description
ObjectClassID	int	Foreign key to the ID field in the GDB_OBJECTCLASSES table
RasterField	varchar(32)	Name of the raster field
IsRasterDataset	int	0 (is not a raster dataset) or 1 (is a raster dataset)

GDB_RELCLASSES

The GDB_RELCLASSES table contains the table relationships in the geodatabase. All the system metadata required to manage relationships, such as the cardinality and the IDs of the origin and destination classes, is stored in the GDB_RELCLASSES table.

Field name	Field type	Description
ID	int	Unique identifier of the relationship class Primary key
DatabaseName	varchar(32)	The name of the geodatabase in which the relationship was created
Owner	varchar(32)	User who owns the relationship class
Name	varchar(160)	Name of the relationship class
OriginClassID	int	ID of the origin object class
DestClassID	int	ID of the destination object class
ForwardLabel	varchar(255)	Label that describes the relationship when navigating from origin class to destination class Nulls allowed
BackwardLabel	varchar(32)	Label that describes the relationship when navigating from destination class to origin class Nulls allowed
Cardinality	int	Code representing the type of cardinality of the relationship class: 1 = one to one 2 = one to many 3 = many to many
Notification	int	Code indicating the notification direction: 1 = none (no messages propagated) 2 = forward (origin to destination) 3 = backward 4 = both (forward and backward notification)
IsComposite	int	If a relationship class is composite, destination objects cannot exist independently of their related origin objects. Possible values are 0 (is simple, not composite) or 1 (is composite)
IsAttributed	int	Indicates whether or not this is an attributed relationship
OriginPrimaryKey	varchar(32)	The name of the primary key field of the origin object class

DestPrimaryKey	varchar(32)	The name of the primary key field in the destination object class
OriginForeignKey	varchar(32)	The name of the foreign key field of the origin object class
DestForeignKey	varchar(32)	The name of the foreign key field in the destination object class
DatasetID	int	Foreign key to the GDB_FEATUREDATASET table Nulls allowed

GDB_RELEASE_INFO

The GDB_RELEASE table stores geodatabase version release information as a single record. This single record reflects the current version installed.

Field name	Field type	Description
Major	int	Number of the release for the geodatabase. For example, ArcGIS 8 was the first major release for the geodatabase, 9 was the second.
Minor	int	The number release of the major release. For 10.1, this would be 1.
Bugfix	int	NOT IN USE AT THIS TIME The number of the patch or service pack installed. If 0, no service pack or patch is installed.

GDB_RELRULES

The GDB_RELRULES table contains the object class relationship rules.

Field name	Field type	Description
RuleID	int	Unique identifier of the rule and foreign key to the ID field in the GDB_VALIDRULES table Primary key
OriginSubtype	int	The subtype of the origin feature class
OriginMinCard	int	Minimum number of origin features to which a destination feature can connect
OriginMaxCard	int	Maximum number of origin features to which a destination feature can connect
DestSubtype	int	The subtype of the destination feature class

DestMinCard	int	Minimum number of destination features to which an origin feature can connect
DestMaxCard	int	Maximum number of destination features to which an origin feature can connect

GDB_REPLICADATASETS

The GDB_REPLICADATASETS table contains information relating to each dataset that was checked out or replicated.

Field name	Field type	Description
ID	int	The unique ID for each record in the table Primary key
ReplicaID	int	The ID of the replica in the parent database
DatasetType	int	The type of each dataset in the replica
DatasetID	int	The ID of each dataset in the replica
ParentOwner	varchar(32)	The owner of the data in the parent geodatabase
ParentDB	varchar(32)	The name of the database in the parent database Nulls allowed

GDB_REPLICAS

The GDB_REPLICAS table contains the metadata for each replica in the geodatabase.

Field name	Field type	Description
ID	int	Unique identifier for the replica (child) version
		Primary key
Name	varchar(32)	Name of the replica (child) version of the geodatabase
Owner	varchar(32)	User who owns the replica (child) version of the geodatabase
Version	varchar(64)	Name of the replica version in the parent geodatabase
ParentID	int	ID of the replica in the parent geodatabase
RepDate	datetime	Date and time the replica was created

DefQuery	image	Contains the replica description, which describes datasets and filters that define the replica
RepGuid	varchar(36)	The GUID value that uniquely identifies the replica across geodatabases
RepCInfo	varchar(1800)	The connection information for the relative replicas geodatabase Nulls allowed
Role	int	Indicates if a replica has the role of parent or child

SPATIAL REFS

Field name	Field type	Description
SRID	autonumber	
SRTEXT	text	
FalseX	double	
FalseY	double	
XYunits	double	
FalseZ	double	
ZUnits	double	
FalseM	double	
MUnits	double	

STRING DOMAINS

Field name	Field type	Description
DomainID	long int	
Format	text	

GDB_SUBTYPES

The GDB_SUBTYPES table contains the valid subtypes of the geodatabase object classes.

Field name	Field type	Description
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ID	int	Unique identifier of the subtype Primary key
ClassID	int	Foreign key to the ID field in the GDB_OBJECTCLASSES table
SubtypeCode	int	Numeric code value representing a subtype; corresponds to the Subtypes Code on the Subtypes tab of the Feature Class Properties dialog box in ArcCatalog Foreign key to Subtype field in GDB_DEFAULTVALUES table and DestClassSubtype field in the GDB_TOPORULES table
SubtypeName	varchar(160)	Name of the subtype; corresponds to the Subtype Description on the Subtypes tab of the Feature Class Properties dialog box in ArcCatalog

GDB_TOOLBOXES

The GDB_TOOLBOXES table contains one record of metadata for each toolbox stored in the geodatabase.

Field name	Field type	Description
ID	int	Unique identifier for the toolbox Primary key
DatabaseName	varchar(32)	The name of the geodatabase in which the toolbox was created
Owner	varchar(32)	User who created the toolbox in the geodatabase
Name	varchar(160)	Name given to the toolbox
DisplayName	varchar(255)	The label of the toolbox Nulls allowed
Alias	varchar(160)	Alternative name for the toolbox Nulls allowed
HelpFile	varchar(255)	Path to the help file containing the help topic for the toolbox Nulls allowed
HelpContext	int	Help context ID from the help file for the help topic associated with the toolbox Nulls allowed

GDB_TOPOCLASSES

The GDB_TOPOCLASSES table contains one record per feature class that participates in a topology.

Field name	Field type	Description
ClassID	int	Unique identifier of the topology class; foreign key to ID field in the GDB_OBJECTCLASSES table
TopologyID	int	Foreign key to ID field in GDB_TOPOLOGIES table

Weight	numeric	Not in use
XYRank	int	The rank in the x,y domain assigned to the feature class in the topology
ZRank	int	The rank in the z domain assigned to the feature class in the topology
EventsOnAnalyze	int	Indicates if an event is broadcast when topology is validated

GDB_TOPOLOGIES

The GDB_TOPOLOGIES table contains one record per topology in the geodatabase.

Field name	Field type	Description
ID	int	Primary key and the unique ID for the topology in the geodatabase
DatabaseName	varchar(32)	The name of the geodatabase in which the topology was created
Owner	varchar(32)	The owner of the topology (the user who created the topology)
Name	varchar(160)	The name of the topology
DatasetID	int	The feature dataset in which the topology resides and the foreign key to the ID field in the GDB_FEATUREDATASET table
Properties	image	Stores information such as the cluster tolerance, max error count, state, and configuration keyword Nulls allowed

GDB_TOPORULES

The GDB_TOPORULES table contains one record per rule in each topology.

Field name	Field type	Description
RuleID	int	Unique identifier of the topology rule; foreign key to the ID field in the GDB_VALIDRULES table
OriginClassID	int	Foreign key to ClassID field in GDB_TOPOCLASSES table
OriginSubtype	int	Foreign key to SubtypeCode field in GDB_Subtypes table
AllOriginSubtypes	int	Indicates if rule applies to all subtypes in the origin feature class
DestClassID	int	Foreign key to CLASSID field in GDB_TOPOCLASSES table
DestSubtype	int	Foreign key to SubtypeCode field in GDB_SUBTYPES table
AllDestSubtypes	int	Indicates if rule applies to all subtypes in the destination feature class
TopologyRuleType	int	The type of topology rule
Name	varchar(160)	User-defined name associated with the topology rule Nulls allowed
RuleGUID	varchar(38)	GUID that uniquely identifies the topology rule

GDB_USERMETADATA

The GDB_USERMETADATA table stores user-defined metadata for all parts of the geodatabase including object classes, feature classes, feature datasets, logical networks, and relationship classes.

Field name	Field type	Description
ID	int	Uniquely identifies the metadata record Primary key
DatabaseName	varchar(32)	The name of the geodatabase
Owner	varchar(32)	The owner of the metadata
NAME	varchar(160)	Name of the dataset to which the metadata refers
DatasetType	int	Code for the type of dataset to which the metadata refers
Xml	image	Metadata content

GDB_VALIDRULES

The GDB_VALIDRULES table contains all the valid rules of the geodatabase. This includes the attribute rules, edge connectivity rules, junction connectivity rules, relationship rules, topology rules, geocoding rules, and spatial rules.

Field Name	Field Type	Description
ID	int	Uniquely identifies a rule Primary key
RuleType	int	The type of validation rule
ClassID	int	Foreign key to ID field in GDB_OBJECTCLASSES table
RuleCategory	int	Not in use at this time
HelpString	varchar(160)	Not in use at this time Nulls allowed