The Best Practices Data Model - Transportation

USGS science for a changing world

March 1, 2006

Feature Detail Tables

Line feature class: Trans_Structure

Relationship class: TransStructureHasBridgeDetail
Type: Simple; Cardinality: One to one; Notification: None
Forward label: Trans_Structure; Backward label: Struct_BridgeDetail
Origin feature class — Name: Trans_Structure; Primary key: Permanent_Identifier; Foreign key: Feature_PermID
Destination table — Name: Struct_BridgeDetail
No relationship rules defined

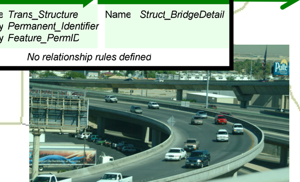
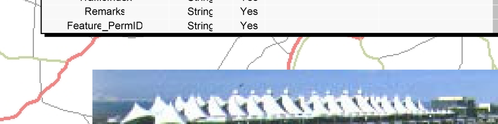


Table: Struct_BridgeDetail

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
Permanent_Identifier	String	Yes					40
Source_FeatureID	String	Yes					40
Source_DatasetID	String	Yes					40
Source_DataDesc	String	Yes					100
Source_Originator	String	Yes					130
Data_Security	Short integer	Yes	0	Sec_Classification Domain	0		
Distribution_Policy	String	Yes	E4	Distribution_Policy Domain			4
LoadDate	Date	Yes			0	0	8
HazusClass	String	Yes					6
HazusTract	String	Yes					12
Owner	String	Yes					40
Type	String	Yes					10
MaxSpanLength	Double	Yes			0	0	
YearBuilt	Long integer	Yes			0		
YearRemodeled	Long integer	Yes			0		
Length	Double	Yes			0	0	
Width	Double	Yes			0	0	
SeatLength	Double	Yes			0	0	
SeatWidth	Double	Yes			0	0	
NumSpans	Long integer	Yes			0		
Cost	Double	Yes			0	0	
SkewAngle	Double	Yes			0	0	
PierType	String	Yes					10
FoundationType	String	Yes					10
ScourIndex	String	Yes					10
Condition	String	Yes					10
Traffic	Long integer	Yes			0		
TrafficIndex	String	Yes					10
Remarks	String	Yes					60
Feature_PermID	String	Yes					40

Point feature class: Trans_AirportPoint



Relationship class: TransAirportPointHasTransStructureDetail
Type: Simple; Cardinality: One to one; Notification: None
Forward label: Trans_AirportPoint; Backward label: Trans_StructureDetail
Origin feature class — Name: Trans_AirportPoint; Primary key: Permanent_Identifier; Foreign key: Feature_PermID
Destination table — Name: Trans_StructureDetail
No relationship rules defined

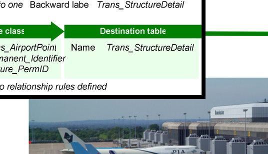


Table: Trans_StructureDetail

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
Permanent_Identifier	String	Yes					40
Source_FeatureID	String	Yes					40
Source_DatasetID	String	Yes					40
Source_DataDesc	String	Yes					100
Source_Originator	String	Yes					130
Data_Security	Short integer	Yes	0	Sec_Classification Domain	0		
Distribution_Policy	String	Yes	E4	Distribution_Policy Domain			4
LoadDate	Date	Yes			0	0	8
HazusClass	String	Yes					6
HazusTract	String	Yes					12
Contact	String	Yes					60
Owner	String	Yes					40
PhoneNumber	String	Yes					20
YearBuilt	Long integer	Yes			0		
Address	String	Yes					60
City	String	Yes					40
State	String	Yes					10
Zipcode	String	Yes					10
UseOrFunction	String	Yes					20
Width	Double	Yes			0	0	
Length	Double	Yes			0	0	
NumFlights	Long integer	Yes			0		
NumPassengers	Long integer	Yes			0		
Cargo	Long integer	Yes			0		
Pavement	String	Yes					10
Cost	Double	Yes			0	0	
BackupPower	Long integer	Yes			0		
Capacity	Long integer	Yes			0		
Traffic	Long integer	Yes			0		
HAZUS_AirportID	String	Yes					8
FAA_Airport_Code	String	Yes					6
Remarks	String	Yes					60
Feature_PermID	String	Yes					40

FEATURE CLASSES

Road

Simple feature class: Trans_RoadSegment — Geometry: Polyline; Contains M values: Yes; Contains Z values: No

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
Shape	Geometry	Yes					
OBJECTID	Object ID						
Permanent_Identifier	String	Yes					40
Source_FeatureID	String	Yes					40
Source_DatasetID	String	Yes					40
Source_DataDesc	String	Yes					100
Source_Originator	String	Yes					130
Data_Security	Short integer	Yes	0	Sec_Classification Domain	0		
Distribution_Policy	String	Yes	E4	Distribution_Policy Domain			4
LoadDate	Date	Yes			0	0	8
Interstate	String	Yes					20
US_Route	String	Yes					20
State_Route	String	Yes					20
County_Route	String	Yes					20
StCo_FIPSCode	String	Yes					5
Road_Class	Long integer	Yes	4	RoadClass Domain	0		
IsOneWay	Long integer	Yes	2	YesNo Domain	0		
OneWay_Direction	String	Yes	N\A				10
Low_Address_Left	String	Yes					12
High_Address_Left	String	Yes					12
Low_Address_Right	String	Yes					12
High_Address_Right	String	Yes					12
Full_Street_Name	String	Yes					100
Zip_Left	String	Yes					10
Zip_Right	String	Yes					10
CFCC_Code	String	Yes					4
Shape_Length	Double	Yes			0	0	

Simple feature class: Trans_Junction — Geometry: Point; Contains M values: No; Contains Z values: No

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
Shape	Geometry	Yes					
OBJECTID	Object ID						
Permanent_Identifier	String	Yes					40
Source_FeatureID	String	Yes					40
Source_DatasetID	String	Yes					40
Source_DataDesc	String	Yes					100
Source_Originator	String	Yes					130
Data_Security	Short integer	Yes	0	Sec_Classification Domain	0		
Distribution_Policy	String	Yes	E4	Distribution_Policy Domain			4
LoadDate	Date	Yes			0	0	8
FCode	Long integer	Yes		Junction FCode	0		

Simple feature class: Trans_Activity — Geometry: Polygon; Contains M values: No; Contains Z values: No

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
Shape	Geometry	Yes					
OBJECTID	Object ID						
Permanent_Identifier	String	Yes					40
Source_FeatureID	String	Yes					40
Source_DatasetID	String	Yes					40
Source_DataDesc	String	Yes					100
Source_Originator	String	Yes					130
Data_Security	Short integer	Yes	0	Sec_Classification Domain	0		
Distribution_Policy	String	Yes	E4	Distribution_Policy Domain			4
LoadDate	Date	Yes			0	0	8
Feature_Type	Long integer	Yes		RoadActivityType FCode	0		
Name	String	Yes					60
Description	String	Yes					75
Frequency	String	Yes					10
Start_Date_Time	Date	Yes			0	0	8
End_Date_Time	Date	Yes			0	0	8
Shape_Length	Double	Yes			0	0	
Shape_Area	Double	Yes			0	0	

Simple feature class: Trans_Route — Geometry: Polyline; Contains M values: Yes; Contains Z values: No

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
Shape	Geometry	Yes					
OBJECTID	Object ID						
Permanent_Identifier	String	Yes					40
Source_FeatureID	String	Yes					40
Source_DatasetID	String	Yes					40
Source_DataDesc	String	Yes					100
Source_Originator	String	Yes					130
Data_Security	Short integer	Yes	0	Sec_Classification Domain	0		
Distribution_Policy	String	Yes	E4	Distribution_Policy Domain			4
LoadDate	Date	Yes			0	0	8
Route_Name	String	Yes					60
Feature_Type	Long integer	Yes		RouteType FCode	0		
Date_Modified	Date	Yes			0	0	8
Date_Retired	Date	Yes			0	0	8
Shape_Length	Double	Yes			0	0	

Simple feature class: Trans_TrailSegment — Geometry: Polyline; Contains M values: Yes; Contains Z values: No

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
Shape	Geometry	Yes					
OBJECTID	Object ID						
Permanent_Identifier	String	Yes					40
Source_FeatureID	String	Yes					40
Source_DatasetID	String	Yes					40
Source_DataDesc	String	Yes					100
Source_Originator	String	Yes					130
Data_Security	Short integer	Yes	0	Sec_Classification Domain	0		
Distribution_Policy	String	Yes	E4	Distribution_Policy Domain			4
LoadDate	Date	Yes			0	0	8
Name	String	Yes					60
Length	Double	Yes			0	0	
Width	Double	Yes			0	0	
ATV	Long integer	Yes	0	YesNo Domain	0		
Bike	Long integer	Yes	0	YesNo Domain	0		
Hike	Long integer	Yes	0	YesNo Domain	0		
Motorcycle	Long integer	Yes	0	YesNo Domain	0		
PackOrSaddle	Long integer	Yes	0	YesNo Domain	0		
NonMotorizedOnly	Long integer	Yes	0	YesNo Domain	0		
GNIS_ID	String	Yes	0				10
Shape_Length	Double	Yes			0	0	

Air

Simple feature class: Trans_AirportComplex — Geometry: Polygon; Contains M values: No; Contains Z values: No

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
Shape	Geometry	Yes					
OBJECTID	Object ID						
Permanent_Identifier	String	Yes					40
Source_FeatureID	String	Yes					40
Source_DatasetID	String	Yes					40
Source_DataDesc	String	Yes					100
Source_Originator	String	Yes					130
Data_Security	Short integer	Yes	0	Sec_Classification Domain	0		
Distribution_Policy	String	Yes	E4	Distribution_Policy Domain			4
LoadDate	Date	Yes			0	0	8
FCode	Long integer	Yes	20000	AirportComplex FCode	0		
Name	String	Yes					60
FAA_Airport_Code	String	Yes					6
Airport_Class	Long integer	Yes		AirportClass Domain	0		
GNIS_ID	String	Yes					10
Shape_Length	Double	Yes			0	0	
Shape_Area	Double	Yes			0	0	

Simple feature class: Trans_AirportRunway — Geometry: Polygon; Contains M values: No; Contains Z values: No

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
Shape	Geometry	Yes					
OBJECTID	Object ID						
Permanent_Identifier	String	Yes					40
Source_FeatureID	String	Yes					40
Source_DatasetID	String	Yes					40
Source_DataDesc	String	Yes					100
Source_Originator	String	Yes					130
Data_Security	Short integer	Yes	0	Sec_Classification Domain	0		
Distribution_Policy	String	Yes	E4	Distribution_Policy Domain			4
LoadDate	Date	Yes			0	0	8
FCode	Long integer	Yes	20100	AirportRunway FCode	0		
Name	String	Yes					60
FAA_Airport_Code	String	Yes					6
Surface_Material	Long integer	Yes		SurfaceType Domain	0		
Runway_Length	Double	Yes			0	0	
Runway_Width	Double	Yes			0	0	
Runway_Status	String	Yes		UseStatus Domain			255
GNIS_ID	String	Yes					10
Shape_Length	Double	Yes			0	0	
Shape_Area	Double	Yes			0	0	

Simple feature class: Trans_AirportPoint — Geometry: Point; Contains M values: No; Contains Z values: No

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
Shape	Geometry	Yes					
OBJECTID	Object ID						
Permanent_Identifier	String	Yes					40
Source_FeatureID	String	Yes					40
Source_DatasetID	String	Yes					40
Source_DataDesc	String	Yes					100
Source_Originator	String	Yes					130
Data_Security	Short integer	Yes	0	Sec_Classification Domain	0		
Distribution_Policy	String	Yes	E4	Distribution_Policy Domain			4
LoadDate	Date	Yes			0	0	8
FType	Long integer	Yes	200		0		
FCode	Long integer	Yes	20000		0		
Airport_Class	Long integer	Yes		AirportClass Domain	0		
FAA_Airport_Code	String	Yes					6
Name	String	Yes					60
GNIS_ID	String	Yes					10

Subtypes of Trans_AirportPoint
Subtype field: FType; Default subtype: 200
List of defined default values and domains for subtypes in this class

Subtype Code	Subtype Description	Field name	Default value	Domain
200	Complex	Data_Security	0	Sec_Classification Domain
		Distribution_Policy	E4	Distribution_Policy Domain
		FCode	20000	AirportComplex FCode
		Airport_Class		AirportClass Domain
227	Control Tower	Data_Security	0	Sec_Classification Domain
		Distribution_Policy	E4	Distribution_Policy Domain
		FCode	22700	AirportControlTower FCode
		Airport_Class		AirportClass Domain
201	Runway	Data_Security	0	Sec_Classification Domain
		Distribution_Policy	E4	Distribution_Policy Domain
		FCode	20100	AirportRunway FCode
		Airport_Class		AirportClass Domain

Rail

Simple feature class: Trans_RailFeature — Geometry: Polyline; Contains M values: Yes; Contains Z values: No

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
Shape	Geometry	Yes					
OBJECTID	Object ID						
Permanent_Identifier	String	Yes					40
Source_FeatureID	String	Yes					40
Source_DatasetID	String	Yes					40
Source_DataDesc	String	Yes					100
Source_Originator	String	Yes					130
Data_Security	Short integer	Yes	0	Sec_Classification Domain	0		
Distribution_Policy	String	Yes	E4	Distribution_Policy Domain			4
LoadDate	Date	Yes			0	0	8
FCode	Long integer	Yes	20200	RailFeature FCode	0		
Name	String	Yes					75
Rail_Usage	Long integer	Yes		TransUsage Domain	0		
Rail_Class	Long integer	Yes		RailClass Domain	0		
GNIS_ID	String	Yes					10
Shape_Length	Double	Yes			0	0	

Simple feature class: Trans_NavAid — Geometry: Point; Contains M values: No; Contains Z values: No

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
Shape	Geometry	Yes					
OBJECTID	Object ID						
Permanent_Identifier	String	Yes					40
Source_FeatureID	String	Yes					40
Source_DatasetID	String	Yes					40
Source_DataDesc	String	Yes					100
Source_Originator	String	Yes					130
Data_Security	Short integer	Yes	0	Sec_Classification Domain	0		
Distribution_Policy	String	Yes	E4	Distribution_Policy Domain			4
LoadDate	Date	Yes			0	0	8
FCode	Long integer	Yes		TransportNavAid FCode	0		
Name	String	Yes					60
Description	String	Yes					75
GNIS_ID	String	Yes					10

Water

Simple feature class: Trans_Waterway — Geometry: Polyline; Contains M values: Yes; Contains Z values: No

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
Shape	Geometry	Yes					
OBJECTID	Object ID						
Permanent_Identifier	String	Yes					40
Source_FeatureID	String	Yes					40
Source_DatasetID	String	Yes					40
Source_DataDesc	String	Yes					100
Source_Originator	String	Yes					130
Data_Security	Short integer	Yes	0	Sec_Classification Domain	0		
Distribution_Policy	String	Yes	E4	Distribution_Policy Domain			4
LoadDate	Date	Yes			0	0	8
FCode	Long integer	Yes		WaterwayType FCode	0		
Name	String	Yes					60
Description	String	Yes					75
GNIS_ID	String	Yes					10
Shape_Length	Double	Yes			0	0	

Simple feature class: Trans_RefPoint — Geometry: Point; Contains M values: No; Contains Z values: No

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
Shape	Geometry	Yes					
OBJECTID	Object ID						
Permanent_Identifier	String	Yes					40
Source_FeatureID	String	Yes					40
Source_DatasetID	String	Yes					40
Source_DataDesc	String	Yes					100
Source_Originator	String	Yes					130
Data_Security	Short integer	Yes	0	Sec_Classification Domain	0		
Distribution_Policy	String	Yes	E4	Distribution_Policy Domain			4
LoadDate	Date	Yes			0	0	8
RefPoint_Name	String	Yes					100
RefPoint_Type	Long integer	Yes	21000	ReferencePoint FCode	0		
Offset_Value	Double	Yes			0	0	
Offset_Reference	String	Yes					100
Date_Modified	Date	Yes			0	0	8
Date_Retired	Date	Yes			0	0	8

Simple feature class: Trans_Structure — Geometry: Polyline; Contains M values: No; Contains Z values: No

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
Shape	Geometry	Yes					
OBJECTID	Object ID						
Permanent_Identifier	String	Yes					40
Source_FeatureID	String	Yes					40
Source_DatasetID	String	Yes					40
Source_DataDesc	String	Yes					100
Source_Originator	String	Yes					130
Data_Security	Short integer	Yes	0	Sec_Classification Domain	0		
Distribution_Policy	String	Yes	E4	Distribution_Policy Domain			4
LoadDate	Date	Yes			0	0	8
FCode	Long integer	Yes	81012	StructureType FCode	0		
Name	String	Yes					60
GNIS_ID	String	Yes					10
Shape_Length	Double	Yes			0	0	

Events

Table: Trans_LineEvent

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
Permanent_Identifier	String	Yes					40
Source_FeatureID	String	Yes					40
Source_DatasetID	String	Yes					40
Source_DataDesc	String	Yes					100
Source_Originator	String	Yes					130
Data_Security	Short integer	Yes	0	Sec_Classification Domain	0		
Distribution_Policy	String	Yes	E4	Distribution_Policy Domain			4
LoadDate	Date	Yes			0	0	8
EID	String	Yes					40
EType	Long integer	Yes	222		0		
ECode	Long integer	Yes			0		
FromMeasure	Long integer	Yes			0		
ToMeasure	Long integer	Yes			0		
Offset	Long integer	Yes			0		

Subtypes of Trans_LineEvent
Subtype field: EType; Default subtype: 222
List of defined default values and domains for subtypes in this class

Subtype Code	Subtype Description	Field name	Default value	Domain
222	Median	Data_Security	0	Sec_Classification Domain
		Distribution_Policy	E4	Distribution_Policy Domain
		ECode	22201	MedianType FCode
203	RoadStatus	Data_Security	0	Sec_Classification Domain
		Distribution_Policy	E4	Distribution_Policy Domain
		ECode	20300	RoadActivityType FCode
226	TollLine	Data_Security	0	Sec_Classification Domain
		Distribution_Policy	E4	Distribution_Policy Domain
		ECode	22600	TollLine FCode
221	AccessControl	Data_Security	0	Sec_Classification Domain
		Distribution_Policy	E4	Distribution_Policy Domain
		ECode	22100	AccessControlType Domain
223	NumberOfLanes	Data_Security	0	Sec_Classification Domain
		Distribution_Policy	E4	Distribution_Policy Domain
		ECode	2	NumberOfLanesType Domain
215	RoadSurface	Data_Security	0	Sec_Classification Domain
		Distribution_Policy	E4	Distribution_Policy Domain
		ECode	1	SurfaceType Domain

Table: Trans_PointEvent

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
Permanent_Identifier	String	Yes					40
Source_FeatureID	String	Yes					40
Source_DatasetID	String	Yes					40
Source_DataDesc	String	Yes					100
Source_Originator	String	Yes					130
Data_Security	Short integer	Yes	0	Sec_Classification Domain	0		
Distribution_Policy	String	Yes	E4	Distribution_Policy Domain			4
LoadDate	Date	Yes			0	0	8
EID	String	Yes					40
EType	Long integer	Yes	225		0		
ECode	Long integer	Yes			0		
Measure	Long integer	Yes			0		
Name	String	Yes					60
Description	String	Yes					40
GNIS_ID	String	Yes					10
Offset	Long integer	Yes			0		

Subtypes of Trans_PointEvent
Subtype field: EType; Default subtype: 225
List of defined default values and domains for subtypes in this class

Subtype Code	Subtype Description	Field name	Default value	Domain
225	ExitNumber	Data_Security	0	Sec_Classification Domain
		Distribution_Policy	E4	Distribution_Policy Domain
		ECode		
224	CrossingPoint	Data_Security	0	Sec_Classification Domain
		Distribution_Policy	E4	Distribution_Policy Domain
		ECode	3	CrossingType Domain

Coded value domain: MedianType FCode
Description: —; Field type: Long integer; Split policy: Duplicate; Merge policy: Default value

Code	Description
22200	Full Median (divided highway)
22201	No Median (undivided highway)

Coded value domain: RoadActivityType FCode
Description: Activity types; Field type: Long integer; Split policy: Duplicate; Merge policy: Default value

Code	Description
20300	Open to Traffic
20301	Abandoned
20302	Closed
20303	Parade
20304	Political Event
20305	Private
20306	Proposed
20307	Summer Only
20308	Winter Only
20309	Temporary (Detour)
20310	Under Construction

Coded value domain: TollLine FCode
Description: —; Field type: Long integer; Split policy: Duplicate; Merge policy: Default value

Code	Description
22600	TollLine

Coded value domain: AccessControlType Domain
Description: —; Field type: Long integer; Split policy: Duplicate; Merge policy: Default value

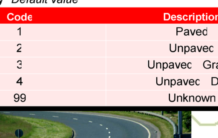
Code	Description
22100	Full Access
22101	Partial Access
22102	No Access

Range domain: NumberOfLanesType Domain
Description: —; Field type: Long integer; Split policy: Duplicate; Merge policy: Default value

Minimum value	Maximum value
1	99

Coded value domain: SurfaceType Domain
Description: —; Field type: Long integer; Split policy: Duplicate; Merge policy: Default value

Code	Description
1	Paved
2	Unpaved
3	Unpaved: Gravel
4	Unpaved: Dirt
99	Unknown



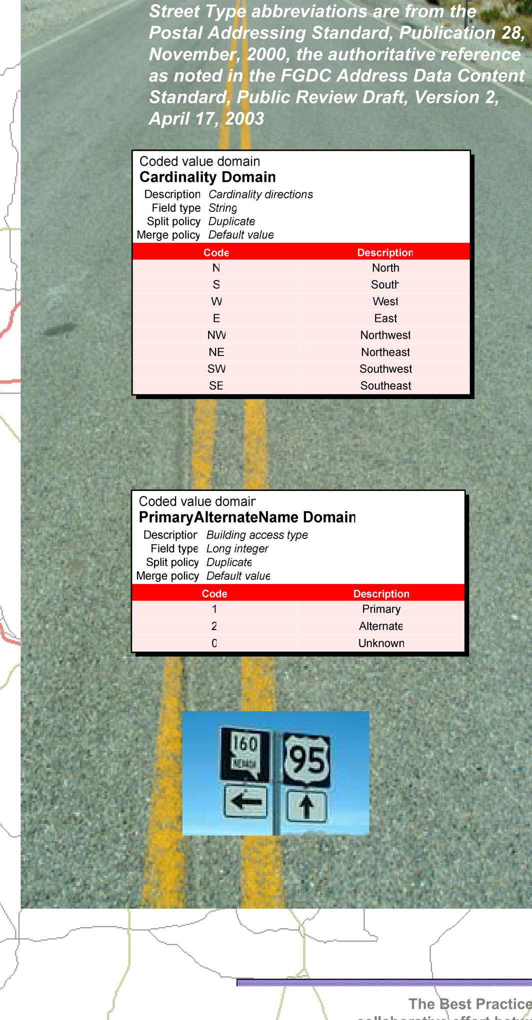
Coded value domain: CrossingType Domain
Description: —; Field type: Long integer; Split policy: Duplicate; Merge policy: Default value

Code	Description
1	Railway
2	Pedestrian Crosswalk
3	Culvert
4	Ford

Street Name Table

Table: Trans_StreetName

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
Permanent_Identifier	String	Yes					40
Source_FeatureID	String	Yes					40
Source_DatasetID	String	Yes					40
Source_DataDesc	String	Yes					100
Source_Originator	String	Yes					130
Data_Security	Short integer	Yes	0	Sec_Classification Domain	0		
Distribution_Policy	String	Yes	E4	Distribution_Policy Domain			4
LoadDate	Date	Yes			0	0	8
Prefix_Dir	String	Yes		Cardinality Domain			4
Prefix_Type	String	Yes					10
Base_Street_Name	String	Yes					60
Street_Type	String	Yes		StreetType Domain			10
Suffix_Dir	String	Yes		Cardinality Domain			4
Suffix_Type	String	Yes					10
Full_Street_Name	String	Yes					100
PrimaryOrAlternateName	Long integer	Yes	1	PrimaryAlternateName Domain	0		
Name_Style	String	Yes					20
RoadSegment_ID	String	Yes					40



Street Type abbreviations are from the Postal Addressing Standard, Publication 28, November, 2000, the authoritative reference as noted in the FGDC Address Data Content Standard, Public Review Draft, Version 2, April 17, 2003

Coded value domain: Cardinality Domain
Description: Cardinality directions; Field type: String; Split policy: Duplicate; Merge policy: Default value

Code	Description
N	North
S	South
W	West
E	East
NW	Northwest
NE	Northeast
SW	Southwest
SE	Southeast

Coded value domain: PrimaryAlternateName Domain
Description: Building access type; Field type: Long integer; Split policy: Duplicate; Merge policy: Default value

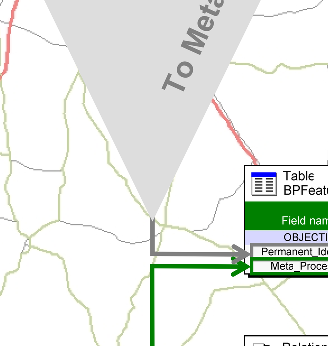
Code	Description
1	Primary
2	Alternate
0	Unknown

Coded value domain: StreetType Domain
Description: —; Field type: String; Split policy: Duplicate; Merge policy: Default value

Code	Description
Aly	Alley
Anx	Annex
Arc	Arcade
Ave	Avenue
Byu	Bayou
Bnd	Bend
Blvd	Boulevard
Br	Branch
Brg	Bridge
Byp	Bypass
Cswy	Causeway
Ctr	Center
Cir	Circle
Cmn	Common
Cor	Corner
Crse	Course
Ct	Court
Cv	Cove
Cres	Crescent
Xing	Crossing
Xrd	Crossroad
Curv	Curve
Dr	Drive
Est	Estate
Expy	Expressway
Ext	Extension
Fry	Ferry
Frd	Ford
Frk	Fork
Fwy	Freeway
Gdn	Garden
Gtwy	Gateway
Hbr	Harbor
Hts	Heights
Hwy	Highway
Jct	Junction
Ky	Key
Knl	Knoll
Lndg	Landing
Ln	Lane
Loop	Loop
Mall	Mall
Mnr	Manor
Mtwy	Motorway
Ova	Oval
Opas	Overpass
Park	Park
Pkwy	Parkway
Pass	Pass
Psge	Passage
Path	Path
Pike	Pike
P	Place
Plz	Plaza
Prt	Port
Rad	Radial
Ramp	Ramp
Rd	Road
Rte	Route
Row	Row
Rue	Rue
Run	Run
Skwy	Skyway
Spur	Spur
Sq	Square
Stra	Stravenue
St	Street
Ter	Terrace
Trwy	Throughway
Trce	Trace
Trfy	Trafficway
Trl	Trail
Tunl	Tunnel
Tpke	Turnpike
Upas	Underpass
Via	Viaduct
Walk	Walk
Way	Way

The Catalog View

Geodatabase
- Feature dataset **Foundation**
  - Polygon feature class **Trans_Activity**
  - Polygon feature class **Trans_AirportComplex**
  - Point feature class **Trans_AirportPoint**
  - Polygon feature class **Trans_AirportRunway**
  - Point feature class **Trans_Junction**
  - Point feature class **Trans_NavAid**
  - Line feature class **Trans_RailFeature**
  - Point feature class **Trans_RefPoint**
  - Line feature class **Trans_RoadSegment**
  - Line feature class **Trans_Route**
  - Line feature class **Trans_Structure**
  - Line feature class **Trans_TrailSegment**
  - Line feature class **Trans_Waterway**
- Object table **Trans_Waterway**
- Object tables **Trans_Waterway**



Feature Metadata

Metadata is stored in the model in three related tables. The Meta_DatasetDetail table holds information specific to the source of the data, i.e.; originator name, data accuracy and currency, data source url, etc.

The Meta_ProcessDetail table holds fields specific to the processor (contact information) and the process used in loading or updating the dataset features or objects.

The BPFeatureToMetadata table links the features and objects to one or more processes and their sources. This table gives the model the capability of lineage, i.e.; tracking the history of changes for a given feature.

Each feature and object in the model is linked to the Meta_DatasetDetail table through the Source_DatasetID field included in every feature class and object table. Certain metadata fields in the Meta_DatasetDetail and Meta_ProcessDetail tables are included on the features and objects themselves to give the user quick access to key metadata information. (See fields outlined in red).

For field definitions, please refer to the document *Standard Content Standard for Digital Geospatial Metadata* (FGDC-STD-001-1998). http://www.fgdc.gov/metadata/contstan.html

Table: BPFeatureToMetadata

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
Permanent_Identifier	String	Yes			0		40
Meta_ProcessID	String	Yes			0		40

Relationship class: MetaProcessToFeature
Type: Simple; Cardinality: One to many; Notification: None
Forward label: FeatureToMetadata; Backward label: MetaProcess
Destination table — Name: BPFeatureToMetadata
Origin table — Name: Meta_ProcessDetail; Primary key: Meta_ProcessID; Foreign key: Meta_ProcessID
No relationship rules defined

Table: Meta_ProcessDetail

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
Meta_ProcessID	String	No					40
ProcessDescription	String	No					4000
ProcessDate	Date	No			0	0	8
LoadDate	Date	No			0	0	8
DataSetCredit	String	Yes					4000
ContactOrganization	String	Yes					100
Address	String	Yes					100
City	String	Yes					40
StateOrProvince	String	Yes					30
PostalCode	String	Yes					20
ContactVoiceTelephone	String	Yes					40
ContactEmailAddress	String	Yes					40
ContactURL	String	Yes					50
ContactInstructions	String	Yes					120

Relationship class: MetaProcessHasMetaDataset
Type: Simple; Cardinality: One to many; Notification: None
Forward label: MetaDataset; Backward label: MetaProcess
Origin table — Name: Meta_ProcessDetail; Primary key: Meta_ProcessID; Foreign key: Meta_ProcessID
Destination table — Name: Meta_DatasetDetail
No relationship rules defined

Table: Meta_DatasetDetail

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
Source_DatasetID	String	No					40
Title	String	Yes					100
Editor	String	Yes					100
SourceOriginator	String	Yes					130
SourceCitationAbbreviation	String	Yes					30
PublicationDate	Date	Yes			0	0	8
BeginningDate	Date	Yes			0	0	8
EndingDate	Date	Yes			0	0	8
SourceCurrentnessReference	String	Yes					100
AttributeAccuracyReport	String	Yes					1800
LogicalConsistencyReport	String	Yes					1000
CompletenessReport	String	Yes					2400
HorizPositionalAccuracyReport	String	Yes					1800
VertPositionalAccuracyReport	String	Yes					1800
Source_IDFieldName	String	Yes					50
SourceScaleDenominator	Long integer	Yes			0		
SourceContribution	String	Yes					750
SourceURL	String	Yes					50
MetadataStandardName	String	Yes					100
MetadataStandardVersion	String	Yes					40
MetadataDate	Date	Yes			0	0	8
Data_Security	Short integer	Yes		Sec_Classification Domain	0		
Distribution_Policy	String	Yes		Distribution_Policy Domain			4
Meta_ProcessID	String	No					40

Domains

Coded value domain: CensusRoadClass Domain
Description: Road Classifications; Field type: String; Split policy: Duplicate; Merge policy: Default value

Code	Description
A00	Road, major and minor categories unknown
A01	Road, unseparated
A02	Road, unseparated, in tunnel
A03	Road, unseparated, underpassing
A04	Road, unseparated, with rail line in center
A05	Road, separated
A06	Road, separated, in tunnel
A07	Road, separated, underpassing
A08	Road, separated, with rail line in center
A10	Primary limited access or interstate hwy, major category
A11	Primary limited access or interstate highway, unseparated
A12	Primary limited access or interstate hwy, unsep, in tunnel
A13	Primary interstate highway, unseparated, underpassing
A14	Primary lmtd access or interstate hwy, unsep, underpass
A15	Primary limited access or interstate highway, separated
A16	Primary limited access or interstate hwy, sep, in tunnel
A17	Primary limited access or interstate hwy, sep, underpass
A18	Primary limited access or interstate hwy, sep, with rail line
A20	Primary US and State highways, major category
A21	Primary US and State highways, unseparated
A22	Primary US and State highways, unseparated, in tunnel
A23	Primary US and State hwys, unseparated, underpassing
A24	Primary US and State hwys, unseparated, with rail line
A25	Primary US and State highways, separated
A26	Primary US and State highways, separated, tunnel
A27	Primary US and State highways, separated, underpassing
A28	Primary US and State highways, separated, with rail line
A30	Secondary State and County highways, major category
A31	Secondary State and County highways, unseparated
A32	Secondary State and County hwys, unsep, in tunnel
A33	Secondary State and Cnty hwys, unseparated, underpass
A34	Secondary State and County hwys, unsep, with rail line
A35	Secondary State and County highways, separated
A36	Secondary State and County hwys, sep, in tunnel
A37	Secondary State and County hwys, sep, underpassing
A38	Secondary State and County hwys, sep, w/ center rail line
A40	Local, neighborhood, rural road, city street, major cat
A41	Local, neighborhood, rural road, city street, unseparated
A42	Local, neighborhood, rural rd, city street, unsep, in tunnel
A43	Local, neighborhood, rural rd, city st, unsep, underpass
A44	Local, neighborhood, rural road, city st, unsep w/ rail line
A45	Local, neighborhood, rural road, city street, separated
A46	Local, neighborhood, rural road, city street, sep, in tunnel
A47	Local, neighborhood, rural rd, city st, sep, underpassing
A48	Local, neighborhood, rural road, city st, sep, with rail line
A50	Vehicular trail, road (4WD) vehicle, major category
A51	Vehicular trail, road (4WD) vehicle, unseparated
A52	Vehicular trail, road (4WD) vehicle, unseparated, in tunnel
A53	Vehicular trail, road (4WD) vehicle, unsep, underpassing
A60	Access ramp, not associated with a limited access hwy
A63	Access ramp, cloverleaf or limited access interchange
A64	Service drive, prov. access to businesses and rest areas
A65	Ferry crossing, Passenger, Seasonal
A66	Ferry crossing, Passenger, Year Round
A68	Ferry crossing, Vehicular, Seasonal
A69	Ferry crossing, Vehicular, Year Round
A70	Other thoroughfare, major category
A73	Alley, road for service vehicles, located at rear of bldgs
A74	Driveway
A75	Road, Parking Area

Coded value domain: Distribution_Policy Domain
Description: Access and Use; Field type: constraints of data; Split policy: String; Merge policy: Default value

Code	Description
A1	Emergency Service Provider - Internal Use Only
A2	Emergency Service Provider - Bitmap Display via Web
A3	Emergency Serv Provider - Free Distribution to Third Parties
A4	Emerg Serv Provider - Free Dist to Third Parties via Internet
B1	Govt Agencies or Delegated Agents - Internal Use Only
B2	Govt Agencies or Delegated Agents - Bitmap Display - Web
B3	Govt Agencies or Delegated Agts - Free Dist to Third Parties
B4	Govt Agcy or Dlgd Agts - Free Dist to 3rd Parties via Internet
C1	Other Public or Educational Institutions - Internal Use Only
C2	Other Public or Educcational Inst - Bitmap Display via Web
C3	Other Public or Educational Inst - Free Dist to Third Parties
C4	Other Pub or Educ Inst - Free Dist to 3rd Parties via Internet
D1	Data Contributors - Internal Use Only
D2	Data Contributors - Bitmap Display via Web
D3	Data Contributors - Free Distribution to Third Parties
D4	Data Contributors - Free Dist to Third Parties via Internet
E1	Public Domain - Internal Use Only
E2	Public Domain - Bitmap Display via Web
E3	Public Domain - Free Distribution to Third Parties
E4	Public Domain - Free Distribution to Third Parties via Internet

Coded value domain: Junction FCode
Description: Transport Junction; Field type: types; Split policy: Long integer; Merge policy: Duplicate

Code	Description
20500	Blocked Passage Permanent
20501	Blocked Passage Removable
20502	Blocked Passage Temporary
20503	Cul-de-sac
20504	Intersection
20505	Traffic Circle
20506	Terminator
20507	Bridge Crossing
20508	Rail Tunnel
20509	Rail Switch
20599	Other

Coded value domain: RailClass Domain
Description: Rail Feature types; Field type: Long integer; Split policy: Duplicate; Merge policy: Default value

Code	Description
1	National Rail
2	Regional Rail
3	InterCity Rail
99	Unknown

Coded value domain: RailFeature FCode
Description: Rail Feature types; Field type: Long integer; Split policy: Duplicate; Merge policy: Default value

Code	Description
20200	Rail
20201	Rail Siding / Spur
20202	Subway
20203	Light Rail
20204	Street Car
20205	Narrow Gauge

Coded value domain: ReferencePoint FCode
Description: —; Field type: Long integer; Split policy: Duplicate; Merge policy: Default value

Code	Description
21000	Milepost Marker
21001	Other Significant Point

Coded value domain: RoadActivityType FCode
Description: Activity types; Field type: Long integer; Split policy: Duplicate; Merge policy: Default value

Code	Description
20300	Open to Traffic
20301	Abandoned
20302	Closed
20303	Parade
20304	Political Event
20305	Private
20306	Proposed
20307	Summer Only
20308	Winter Only
20309	Temporary (Detour)
20310	Under Construction

Coded value domain: RoadClass Domain
Description: Road Classifications; Field type: Long integer; Split policy: Duplicate; Merge policy: Default value

Code	Description
1	Freeway
2	Highway
3	Collector
4	Local
5	Service
6	4WD
7	Ramp
8	Ferry
9	Recreation
10	Resource
99	Unknown

Coded value domain: RouteType FCode
Description: Transport Route; Field type: types; Split policy: Long integer; Merge policy: Duplicate

Code	Description
20900	Alternate Route
20901	Bus Route
20902	Business Route
20903	By-Pass Route
20904	Emergency Route
20905	Evacuation Route
20906	Loop
20908	Rail Route
20907	Scenic Route
20909	Truck Route

Coded value domain: Sec_Classification Domain
Description: Security; Field type: Classification of data; Split policy: Short integer; Merge policy: Default value

Code	Description
0	Unknown
1	Top Secret
2	Secret
3	Confidential
4	Restricted
5	Unclassified
6	Sensitive

Coded value domain: StructureType FCode
Description: —; Field type: Long integer; Split policy: Duplicate; Merge policy: Default value

Code	Description
81012	Bridge
81014	Bridge Light Rail / Subway
81016	Bridge Railroad
81018	Bridge Road
20503	Cul-de-sac
20505	Traffic Circle
20408	Obstruction
20422	Gated Barrier
20423	Toll Booth Barrier
20100	Runway
81073	Snowshed
81080	Tunnel
81082	Tunnel Light Rail / Subway
81084	Tunnel Railroad
81086	Tunnel Road
20499	Other

Coded value domain: TransNavAid FCode
Description: Transport NavAid; Field type: types; Split policy: Long integer; Merge policy: Duplicate

Code	Description
20800	Air Navigation Aid
20801	Water Marker Bouy
20802	Lighthouse
20803	Landmark
20899	Other

Coded value domain: TransUsage Domain
Description: Railroad type of use; Field type: Long integer; Split policy: Duplicate; Merge policy: Default value

Code	Description
1	Cargo
2	Passenger
99	Unknown

Coded value domain: WaterwayType FCode
Description: Waterway types; Field type: Long integer; Split policy: Duplicate; Merge policy: Default value

Code	Description
20700	Ferry Route
20701	Navigation Route
20702	Other

Coded value domain: AirportClass Domain
Description: Airport types; Field type: Long integer; Split policy: Duplicate; Merge policy: Default value

Code	Description
1	Private Airstrip / Airport
2	Municipal Airstrip / Airport
3	Regional Airport
4	International Airport
5	Military
99	Unknown

Coded value domain: AirportComplex FCode
Description: Airport Surface types; Field type: Long integer; Split policy: Duplicate; Merge policy: Default value

Code	Description
20000	Airport Complex

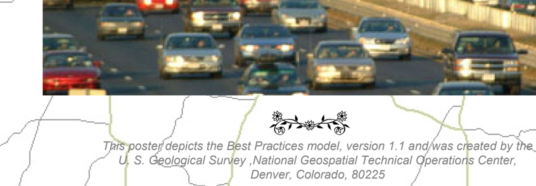
Coded value domain: AirportControlTower FCode
Description: Airport Surface types; Field type: Long integer; Split policy: Duplicate; Merge policy: Default value

Code	Description
22700	Control Tower

Coded value domain: AirportRunway FCode
Description: Airport Surface types; Field type: Long integer; Split policy: Duplicate; Merge policy: Default value

Code	Description
20100	Runway
20101	Taxiway
20102	Apron\Hardstand
20103	Stopway

The Best Practices Data model was developed as a collaborative effort between ESRI and the U.S. Geological Survey. A "GIS for the Nation," the Best Practices Data Model offers a data sharing information template to accommodate local, state, tribal, and national data needs.



This poster depicts the Best Practices model, version 1.1 and was created by the U. S. Geological Survey, National Geospatial Technical Operations Center, Denver, Colorado, 80225