The Pipeline Open Data Standard (PODS) Conceptual Model 7

Pipeline Open Data Standard

Start Here

The boxes in this section represent abstract objects that are common across PODS tables and feature classes (tables that store geometry) where indicated in the diagram below. This allows the PODS model to show attributes (fields or columns) that are unique to each table or feature class and not have to duplicate the attributes in each one, thus saving space and complexity.

The **AbT** represents the ABSTRACT TABLE throughout the model. The **yellow** box indicates a table (non-spatial) anywhere in the diagram.
The **AbF** represents the ABSTRACT FEATURE throughout the model. *The Abstract Feature is a feature class in ESRI or spatial table in a relational database that stores geometry per the FEATURE_GEOMETRY field. Abstract features in the model are depicted in various colors throughout the diagram.

The PIPELINE_FEATURE, NETWORK_POINT, NETWORK_POLYLINE, CROSSING AND ASSET boxes depict common fields in PODS tables and feature classes. When these blue titled boxes are displayed throughout the diagram, this indicates the fields in the table are also represented in those tables. For example, the fields in the PIPELINE_FEATURE box below are also included anywhere in the diagram where PIPELINE_FEATURE box is referenced. The ASSET fields would be included in any asset table or feature class as indicated in the "Assets" section below.

LEGEND

- Point
- Polyline
- Polygon
- Table (no shape)
- (table) Related table
- Related table connector
- Abstract connector

ABOUT THE MODEL

Attribute names ending in ID represent Primary Key or Foreign Key fields.
Attribute names ending in _RFX represent the parent ID record for a reflexive or self-relationship.
Attribute names ending in _IDENTIFIER indicate a field used for identification (non-database)
BOLD field name indicates a required field.
(fk) – Indicates a 'child' field of a relationship where the value contains the linked UNIQUE_ID of the 'parent' table
(d) – Indicates a list of coded values (ESRI domain or a code lookup in relational database)

AbT

ABSTRACT TABLE
UNIQUE_ID
PRESERVE_RELATE_IDENTIFIER
DESCRIPTION
COMMENTS
FROM_DATE
TO_DATE
STATUS (d)
CREATED_USER
CREATED_DATE
LAST_EDITED_USER
LAST_EDITED_DATE

AbF

ABSTRACT FEATURE (Point/Line/Poly)
UNIQUE_ID
FEATURE_GEOMETRY*
PRESERVE_RELATE_IDENTIFIER
DESCRIPTION
COMMENTS
FROM_DATE
TO_DATE
STATUS (d)
CREATED_USER
CREATED_DATE
LAST_EDITED_USER
LAST_EDITED_DATE

PIPELINE_FEATURE
EDIT_RESPONSE (d)
LOC_ERROR
MAINTAIN_LRS (d)
NETWORK_ID (d)
PIPELINE_ID (fk)
POSITION_SOURCE (d)
VISUAL_OFFSET

NETWORK_POLYLINE
DERIVED_CM_ROUTE_ID (fk)
DERIVED_NETWORK_ROUTE_NAME
DERIVED_FROM_MEASURE
DERIVED_TO_MEASURE
FROM_MEASURE
FROM_NETWORK_ROUTE_ID (fk)
FROM_NETWORK_ROUTE_NAME
TO_MEASURE
TO_NETWORK_ROUTE_ID (fk)
TO_NETWORK_ROUTE_NAME
VALIDITY_TOLERANCE

NETWORK_POINT
DERIVED_CM_ROUTE_ID (fk)
DERIVED_MEASURE
DERIVED_NETWORK_ROUTE_NAME
MEASURE
NETWORK_ROUTE_ID (fk)
NETWORK_ROUTE_NAME
VALIDITY_TOLERANCE

CROSSING
ANGLE
CLASS_LOCATION_RATING (d)
CLEARANCE
CROSSING_NAME
CROSSING_OWNER
EASEMENT_DS
EASEMENT_US
IS_BELOW_LINE (d)

ASSET
IN_SERVICE_DATE
INSTALLED_DATE
MANUFACTURED_DATE
SITE_ID (fk)
TAG_IDENTIFIER

Pipeline Hierarchy

AbT

PIPELINE
HAS_LRS
HAS_ROUTE
INTERSTATE
LOCATION
OPERATIONAL_STATUS (d)
OPERATOR_COMPANY_ID (fk)
PARENT_PIPELINE_RFX (fk)
PIPELINE_NAME
PIPELINE_ORDER
PIPELINE_TAG
PIPELINE_TYPE (d)
SYSTEM_TYPE (d)

ENG & CM NETWORK

PIPELINE_COMPANY
IS_OPERATOR
IS_OWNER
NATIONAL_IDENTIFIER
PL_COMPANY_NAME
PL_COMPANY_ACRONYM
STATE_OR_PROV_IDENTIFIER

PIPELINE_PRODUCT
IS_PRIMARY_PRODUCT
PIPELINE_ID (fk)
PRODUCT_ID (fk)

ENG & CM NETWORK

PRODUCT
PRODUCT_SUB_TYPE (fk)
PRODUCT_TYPE (fk)

OWNERSHIP
DETERMINATION_DATE
OWNER_COMPANY_ID (fk)
PERCENT_OWNERSHIP

AbF

ASSET

SITE
PARENT_SITE_RFX (fk)
SITE_NAME
SITE_TYPE

SITE_CENTROID
SITE_ID (fk)

SITE_LAYOUT
SITE_ID (fk)

SITE_BOUNDARY
SITE_ID (fk)

SITE_PIPELINE_LOCATION
SITE_ID (fk)
SITE_PIPELINE_INTERACTION (fk)
SURVEY_COORD_X
SURVEY_COORD_Y
SURVEY_COORD_Z
SURVEY_CRS_WKT_1
SURVEY_CRS_WKT_2

ENG & CM NETWORK

NETWORK_POLYLINE ***PIPELINE_FEATURE*** ***NETWORK_POINT***

Pipeline Hierarchy defines the pipeline system hierarchy such as routes and lines in prior versions of PODS. Pipelines can be in any type of system (transmission, gathering, etc.) and can hold any product. Sites describe information not part of the actual pipelines, but part of the overall system, such as plants, offices, valve stations, compressor and meter stations, etc. Sites can be associated to a pipeline and have stationing or measure through the SITE_PIPELINE_LOCATION table.

PIPELINE HIERARCHY POINT, POLYLINE OR POLYGON

Linear Referencing (APR)

esri

AbF

CALIBRATION_POINT
UNIQUE_ID
BACKWARD_MEASURE
CALIBRATION_POINT_MEASURE
FEATURE_GEOMETRY
FORWARD_MEASURE
NETWORK_ID
NETWORK_ROUTE_CMNET_ID (fk)
NETWORK_ROUTE_ESNET_ID (fk)
POINT_TYPE
SERIES_ORDER

REDLINE
UNIQUE_ID
ACTIVITY_TYPE
EFFECTIVE_DATE
FEATURE_GEOMETRY
NETWORK_ID
NETWORK_ROUTE_CMNET_ID (fk)
NETWORK_ROUTE_ESNET_ID (fk)
REDLINE_TO_MEASURE
REDLINE_FROM_MEASURE
ROUTE_NAME

CENTERLINE
*UNIQUE_ID
FEATURE_GEOMETRY

AbT

CENTERLINE_SEQUENCE
UNIQUE_ID
CENTERLINE_ID (fk)
NETWORK_ID (d)**
NETWORK_ROUTE_CMNET_ID (fk)
NETWORK_ROUTE_ESNET_ID (fk)

ENGINEERING_STA_NETWORK (ENG NETWORK)
UNIQUE_ID
FEATURE_GEOMETRY
NETWORK_ID
NETWORK_ROUTE_ORDER
NETWORK_ROUTE_NAME
PARENT_NETWORK_ROUTE_ID
PARENT_NETWORK_ROUTE_NAME
PIPELINE_ID (fk)
PRESERVE_RELATE_IDENTIFIER
REFERENCE_MODE_ID (fk)
STATIONING_DIRECTION

CONTINUOUS_MEAS_NETWORK (CM NETWORK)
UNIQUE_ID
FEATURE_GEOMETRY
NETWORK_ID
NETWORK_ROUTE_ORDER
NETWORK_ROUTE_NAME
PARENT_NETWORK_ROUTE_ID
PARENT_NETWORK_ROUTE_NAME
PIPELINE_ID (fk)
PRESERVE_RELATE_IDENTIFIER
REFERENCE_MODE_ID (fk)

PIPELINE
REFERENCE_MODE

APR POINT OR POLYLINE

Linear referencing tables are included to manage location referencing for pipelines using ESRI™ ArcGIS Pipeline Referencing tool (APR). However, the tables can be used as the base for any data management software. The CONTINUOUS_MEAS_NETWORK replace the previous PODS Routes. These features contain measure values along the route in a continuous and un-interrupted state. The ENGINEERING_STATION_NETWORK replace the previous PODS Series. These feature contain station values along each route. Both have a relationship storing multiple pipelines using the PIPELINE_ID field. Both have a relationship to store specific reference modes using the REFERENCE_MODE_ID field. The CENTERLINE feature class and CENTERLINE_SEQUENCE table do NOT have the describe fields.

*A UNIQUE_ID field is included in all the APR tables for consistency to other PODS tables.
**NETWORK_ID (d)- The value from dLRSNetworks (ESRI APR required domain); EngineeringStationNetwork = 1; ContinuousMeasureNetwork = 2

Assets

Assets are appurtenances, installed components or devices on (points) or along (polyline) the pipeline system. Assets can belong to the pipeline or a site. They require regular maintenance and inspection, thus each asset contains fields that can link back to an Enterprise Resource Management (ERP) system.

AbF

NETWORK_POLYLINE ***PIPELINE_FEATURE*** ***ASSET***

ASSETS POLYLINE — ENG & CM NETWORK, PIPELINE, SITE

CASING
CASING_LENGTH
IS_INSULATED (d)
IS_SHORTED (d)
IS_VENTED (d)
MATERIAL (d)
NOMINAL_WALL_THICKNESS (d)
NUMBER_OF_VENTR
OUTSIDE_DIAMETER (d)
SEAL_TYPE (d)

VENT

COATING
APPLICATION_COMPANY (d)
APPLICATION_LOCATION (d)
APPLICATION_METHOD (d)
COATING_LAYER
COATING_LOCATION
COATING_TYPE (d)
DATE_APPLIED
DIRECT_EXAM_RESULTS_ID (fk)
HEAT_CAPACITY
IS_APPLIED_FOR_REPAIR (d)
MATERIAL (d)
RECOAT (d)
THICKNESS

PIPE_LENGTH
BAR_CODE
DS_WELD_IDENTIFIER
HEAT_NUMBER
LENGTH_IDENTIFIER
LONG_SEAM_CLOCK_POSITION
LONG_SEAM_ORIENTATION
LONG_SEAM_TYPE
LONG_SEAM_WELD_TYPE
US_WELD_IDENTIFIER

PIPE_SEGMENT
DIRECT_EXAM_RESULTS_ID
DESIGN_PRESSURE_RATING
EQUIVALENT_ASSET_TYPE (d)
GRADE (d)
IS_CARRIER_PIPE (d)
IS_PIGGABLE (d)
IS_TETHERED (d)
JOIN_TYPE (d)
LONG_SEAM_WELD_TYPE (d)
MANUFACTURER (d)
MATERIAL (d)
MILL_LOCATION
MILL_TEST_PRESSURE
NOMINAL_DIAMETER (d)
ORIGIN (d)
OUTSIDE_DIAMETER (d)
PIPE_SEGMENT_TYPE (d)
REGULATION_TYPE (d)
SMYS (d)
SPECIFICATION (d)
WALL_THICKNESS (d)

EQUIVALENT ASSET POINTS*

*Equivalent Asset points are the feature tables in the Assets Point group that have a "pipe_segment_id" as the foreign_keys (fk). These points can be depicted as a linear pipe segment as well as a point.

REPAIR_DEVICE
IS_COATED (d)
SERIAL_NUMBER
REPAIR_DEVICE_MANUFACTURER (d)
REPAIR_DEVICE_MATERIAL (d)
REPAIR_DEVICE_TYPE (d)

REPAIR_SLEEVE
IS_COATED (d)
SERIAL_NUMBER
IS_PRESSUREIZED (d)
IS_WELDED_TO_PIPE (d)
PRESSURE_RATING
REPAIR_SLEEVE_MANUFACTURER (d)
REPAIR_SLEEVE_MATERIAL (d)
REPAIR_SLEEVE_TYPE (d)

AbF

NETWORK_POINT ***PIPELINE_FEATURE*** ***ASSET***

ASSETS POINT — ENG & CM NETWORK, PIPELINE, SITE

LAUNCHER_RECEIVER
PIPE_SEGMENT_ID (fk)
BARREL_DIAMETER (d)
BARREL_ORIENTATION (d)
BARREL_SPECIFICATION (d)
BARREL_WALL_THICKNESS (d)
CORROSION_ALLOWANCE
LAUNCER_RECEIVER_IDENTIFIER
MANUFACTURER (d)
MAXIMUM_PIG_DIAMETER
MAXIMUM_PIG_LENGTH
NOMINAL_PRESSURE_RATING
IS_PORTABLE (d)
TOTAL_LENGTH
TRAP_CLOSURE_TYPE
LAUNCHER_RECEIVER_TYPE (d)

VALVE
PIPE_SEGMENT_ID (fk)
BRANCH_CONNECT_ID
FUNCTIONAL_STATUS (d)
IS_REMOTELY_OPERATED (d)
IS_SAFETY_CRITICAL_EQUIPMENT (d)
MANUFACTURER (d)
MATERIAL (d)
MODEL
OPERATOR_MANUFACTURER (d)
OPERATOR_TYPE (d)
OUTSIDE_DIAMETER (d)
RATING (d)
RESPONSE_TIME
SPECIFICATION (d)
VALVE_CURRENT_POSITION (d)
VALVE_DEFAULT_POSITION (d)
VALVE_FUNCTION (d)
VALVE_IDENTIFIER
VALVE_JOIN_TYPE (d)
VALVE_LENGTH
VALVE_MILL_TEST_PERSSUER (d)
VALVE_TYPE (d)

BRANCH_CONNECT
PIPE_SEGMENT_ID (fk)
BRANCH_CONNECT_TYPE (d)
BRANCH_NOM_WALL_THICKNESS (d)
BRANCH_OUTSIDE_DIAMETER (d)
MANUFACTURER (d)
SPECIFICATION (d)
TAP_METHOD (d)

TEE
PIPE_SEGMENT_ID (fk)
BRANCH_OUTSIDE_DIAMETER (d)
INLET_OUTSIDE_DIAMETER (d)
MANUFACTURER (d)
MATERIAL (d)
NOMINAL_WALL_THICKNESS (d)
OUTLET_OUTSIDE_DIAMETER (d)
SPECIFICATION (d)
TEE_TYPE (d)

REDUCER
PIPE_SEGMENT_ID (fk)
GRADE (d)
INLET_OUTSIDE_DIAMETER (d)
MANUFACTURER (d)
MATERIAL (d)
OUTLET_OUTSIDE_DIAMETER (d)
REDUCER_TYPE (d)
SPECIFICATION

ELBOW
PIPE_SEGMENT_ID (fk)
ELBOW_RADIUS
GRADE (d)
HORIZONTAL_ANGLE
INLET_OUTSIDE_DIAMETER (d)
MANUFACTURER (d)
MATERIAL (d)
NOMINAL_WALL_THICKNESS (d)
OUTLET_OUTSIDE_DIAMETER (d)
SPECIFICATION (d)
VERTICAL_ANGLE

GIRTH_WELD
COATING_MATERIAL (d)
GIRTH_WELD_IDENTIFIER
GIRTH_WELD_TYPE (d)
LOCATION_METHOD (d)
VENDOR_IDENTIFIER

VENT
CASING_ID (fk)
MATERIAL (d)
NOMINAL_DIAMETER (d)
VENT_TYPE (d)

METER
PIPE_SEGMENT_ID (fk)
BRANCH_CONNECT_ID (fk)
MANUFACTURER (d)
METER_NUMBER
METER_STATUS (d)
METER_TYPE (d)
SERIAL_NUMBER

FLANGE
PIPE_SEGMENT_ID (fk)
FLANGE_TYPE (d)
MANUFACTURER (d)
NOMINAL_PRESSURE_RATING
SPECIFICATION (d)

PIPE_BEND
PIPE_SEGMENT_ID (fk)
HORIZONTAL_ANGLE
PIPE_BEND_FABRICATOR_NAME (d)
PIPE_BEND_RADIUS
PIPE_BEND_TECHNIQUE (d)
PIPE_BEND_TYPE (d)
VERTICAL_ANGLE

MISC_FITTING
PIPE_SEGMENT_ID (fk)
MISC_FITTING_TYPE (d)

CLOSURE
CLOSURE_TYPE (d)
MANUFACTURER (d)
OUTSIDE_DIAMETER (d)

MECHANICAL_JOINT
MECHANICAL_JOINT_TYPE (d)
MANUFACTURER (d)
NOMINAL_PRESSURE_RATING
SPECIFICATION (d)

Locations

Locations represent a location on the pipeline and consist of markers or line crossing the pipeline, such as third party pipelines or utility lines, hydrology (rivers, lakes, etc) or roads and highways. Location tables/feature classes allow for storing of survey information.

AbF

PIPELINE_FEATURE ***NETWORK_POINT*** — LOCATIONS POINT — ENG & CM NETWORK, PIPELINE

CROSSING

MARKER
MARKER_IDENTIFIER
MARKER_INSTALL_DATE
MARKER_NUMBER
MARKER_TYPE (d)
SURVEY_COORD_X
SURVEY_COORD_Y
SURVEY_COORD_Z
SURVEY_CRS_WKT_1
SURVEY_CRS_WKT_2

CROSSING_TRANSPORTATION
IS_HEAVY_HAUL_ROAD (d)
IS_PATROLLED_ROAD (d)
IS_PUBLIC_ROAD (d)
NUMBER_OF_LANES
TRANSPORTATION_TYPE (d)
SURVEY_COORD_X
SURVEY_COORD_Y
SURVEY_COORD_Z
SURVEY_CRS_WKT_1
SURVEY_CRS_WKT_2

CROSSING_PIPELINE
IS_BELOW_GROUND (d)
IS_BONDED (d)
PIPELINE_COATING (d)
PIPELINE_DIAMETER (d)
PIPELINE_MATERIAL (d)
PIPELINE_TYPE (d)
PIPE_TO_GROUND_ON
PIPE_TO_GROUND_OFF
SURVEY_COORD_X
SURVEY_COORD_Y
SURVEY_COORD_Z
SURVEY_CRS_WKT_1
SURVEY_CRS_WKT_2

CROSSING_HYDROLOGY
FLOODPLAIN_TYPE (d)
HYDROLOGY_TYPE (d)
IS_NAVIGABLE_WATERWAY (d)
SURVEY_COORD_X
SURVEY_COORD_Y
SURVEY_COORD_Z
SURVEY_CRS_WKT_1
SURVEY_CRS_WKT_2

CROSSING_UTILITY
IS_BELOW_GROUND (d)
IS_BONDED (d)
UTILITY_TYPE (d)
UTILITY_VOLTAGE
SURVEY_COORD_X
SURVEY_COORD_Y
SURVEY_COORD_Z
SURVEY_CRS_WKT_1
SURVEY_CRS_WKT_2

Learn more at PODS.org

Operations

AbF

NETWORK_POLYLINE ***PIPELINE_FEATURE***

OPERATIONS POLYLINE — ENG & CM NETWORK, PIPELINE

CLASS_LOCATION
CLASS_LOCATION_RATING (d)
DETERMINATION_AUTHORITY
DETERMINATION_METHOD (d)

CONSEQUENCE_SEGMENT
DETERMINATION_AUTHORITY
DETERMINATION_METHOD (d)

PIPE_JURISDICTION
CITY
COUNTRY (d)
COUNTY (d)
CSFM_PLINE_ID
NPMS_OPID
RRC_PS
RRC_T4
RRC_SYS_ID
RRS_PLS_SYSNM
STATE (d)

PIPE_OPERATING_CONDITION
IS_ABOVE_GROUND_PIPE (d)
IS_ABOVE_WATER (d)
IS_HDD_SEGMENT (d)
IS_OFFSHORE (d)
POP_CONDITION_PROVENANCE (d)

OPERATION_PRESSURE
DETERMINATION_AUTHORITY
DETERMINATION_METHOD (d)
MOP_TEMPERATURE
PERCENT_SMYS
PRESSURE
PRESSURE_CALCULATED_AS
PRESSURE_TYPE
PRESSURE_GROUP

TEST_PRESSURE
ASSESSMENT_TYPE
ASSESSMENT_RANGE_ID (fk)
CHART (d)
DEADWEIGHT_ADJ_MIN_PRESSURE
DEADWEIGHT_ELEVATION
MAX_PRESSURE_AT_MIN_ELEVATION
MIN_PRESSURE_AT_MAX_ELEVATION
ORIGINAL_TEST_LENGTH
REASON_FOR_TEST
SPIKE_TEST_DURATION
SPIKE_TEST_PRESSURE
SPIKE_TEST_REQUIRED
STRENGTH_TEST_DURATION
STRENGTH_TEST_PRESSURE_MAX
STRENGTH_TEST_PRESSURE_MIN
TEST_PRESSURE
TEST_PRESSURE_DATE
TEST_PRESSURE_GROUP
TEST_PRESSURE_MIN_ELEVATION
TEST_STATION_ELEVATION
TEST_STATION_PRESSURE
TESTPRESSURE_DURATION
TESTPRESSURE_MAX_ELEVATION
TESTPRESSURE_MEDIUM (d)
VALIDATED (d)
WITNESSED (d)

Operations are a classification of a part of the pipeline system based on organizational needs or as the result of analysis of the pipeline and the surrounding geography. Each Operations table/feature class has it's own DETERMINATION_METHOD domain or code list with distinct values specific to that table/feature class.

Conditions

AbF

PIPELINE_FEATURE

CONDITIONS POINT OR POLYLINE — ENG & CM NETWORK, PIPELINE

NETWORK_POLYLINE

EXPOSURE_SPAN
EXPOSURE_SPAN_TYPE (d)
IS_INTENTIONAL (d)
IS_ORIGINAL_CONSTRUCTION (d)
IS_SUPPORTED (d)
SPAN_LENGTH
SPAN_HEIGHT
SPAN_HEIGHT_LOCATION_OFFSET

INSPECTION_RANGE
ASSESSMENT_TYPE
ASSESSMENT_RANGE (fk)
INSPECTION_BEGIN_DATE
INSPECTION_END_DATE
INSPECTION_REASON (d)
INSPECTION_RANGE_TYPE (d)
PROJECT_NUMBER
RUN_DIRECTION (d)
TOOL_TYPE (d)

NETWORK_POINT

INSPECTION_POINT
DEPTH_OF_COVER
DEPTH_UNDER_WATER
ELEVATION_BOP
ELEVATION_COP
ELEVATION_GROUND
ELEVATION_TOP
MEASURED_DATE
MEASUREMENT_METHOD (d)

ELEVATION_POINT
INSPECTION_BEGIN_DATE
INSPECTION_END_DATE
INSPECTION_POINT_TYPE (d)
INSPECTION_LENGTH

INSPECTION_LOC_CROSS_REF
INSPECTION_ID
INSPECTION_TABLE_NAME (d)
INSPECTION_RANGE_ID (fk)
INSPECTION_POINT_ID (fk)

AbT

PHYSICAL_INSPECTION
ILI_INSPECTION

Conditions represent the 'state' or 'condition' of the pipeline and can record previous or historical states of the pipeline as the conditions change over time. Conditions also represent the results of an activity such as a physical or inline inspection.
Conditions are discovered or measured as a result of an 'Activity', such as an inspection, that is performed on or along the pipeline.
There can be many inspections associated to many point or polyline inspections. The INSPECTION_LOC_CROSS_REF table stores those relationships and assigns the type of inspection, a physical or ILI inspection.

Documents & Activities

The Documents allow for storing links to documents and the point and polygon boundary of those documents and comments along the pipeline linked to any objects in the model. Activities can include repairs or inspections. A repair can be done and stored for any asset. Notes can be used to store information describing any objects in the model. Notes replaces routing, sheet, and field notes in prior models.

AbF

PIPELINE_FEATURE ***NETWORK_POINT***

NOTE
NOTE_LABEL
NOTE_TYPE (d)

DOCUMENT_BOUNDARY
DOCUMENT_ID (fk)

DOCUMENT_RANGE
DOCUMENT_ID (fk)

AbT

DOCUMENT
DOCUMENT_PERFORMANCE (d)
DOCUMENT_TYPE (d)
FILE_NAME
FILE_PATH_URL
FILE_SYSTEM_TYPE (d)
MIME_TYPE (d)

DOCUMENT_CROSS_REF
ATTRIBUTE_METADATA_ID
DOCUMENT_ID
DOCUMENT_XREF_TYPE (d)
TABLE_METADATA_ID (fk)
TABLE_RECORD_IDENTIFIER

ACTIVITY_CROSS_REF
ACTIVITY_ID
TABLE_METADATA_ID
TABLE_RECORD_IDENTIFIER

ACTIVITY
ACTIVITY_DATE
ACTIVITY_NAME
ACTIVITY_PERFORMANCE (d)
ACTIVITY_TYPE
ACTIVITY_SUMMARY
PARENT_ACTIVITY_RFX (fk)

REPAIR
ACTIVITY_ID
APPROVED_DATE
COMPLETE_DATE
PLANNED_DATE
REPAIR_TYPE (d)
START_DATE

TABLE_METADATA

ATTRIBUTE_METADATA

ALL TABLES

COMMENT
COMMENT_AUTHOR
COMMENT_DATE
COMMENT_TEXT
TABLE_METADATA_ID (fk)
TABLE_RECORD_IDENTIFIER

PHYSICAL_INSPECTION
ACTIVITY_ID
APPROVED_DATE
COMPLETE_DATE
PHYSICAL_INSPECTION_TYPE (d)
PLANNED_DATE
START_DATE

REPAIR_CROSS_REF
REPAIR_ID
REPAIR_ITEM_TABLE_NAME (d)
REPAIR_ITEM_ID

ANY ASSET

DOCUMENT POINT, POLYLINE OR POLYGON

Metadata Tables

Metadata tables are used to describe generic non-spatial elements and to capture or codify rules about the structure and content of the model. Metadata describes structure, behavior and content of tables, modules and layers and the model itself all. They are the key to managing data within a PODS 7.0 data model using a consistent, standard and documented approach adhering to safe operations and easing responses to governmental audits.

AbT

LAYER_METADATA
ALLOW_GAP (d)
ALLOW_OVERLAP (d)
ALLOW_NULL_GEOMETRY (d)
DEFINITION_QUERY
DEPENDENT_LAYER_RFX
DEPENDENT_LAYER_TOPOLOGY (d)
LAYER_LOCATION_MODE
TABLE_METADATA_ID

TABLE_METADATA
CRS_WKT_1
CRS_WKT_2
MODULE_METADATA_ID
TABLE_CATEGORY
TABLE_GEOMETRY_TYPE (d)
TABLE_SPATIAL_DATA_TYPE (d)
TABLE_CODE
TABLE_NAME
TABLE_LOGICAL_NAME
TABLE_LOGICAL_HIERARCHYPATH

MODULE_METADATA
MODULE_NAME
MODULE_VERSION_NUMBER
MODULE_RELEASE_DATE
MODULE_INSTALL_DATE
MODULE_DISPLAY_NAME
PODS_CERTIFICATION (d)

ATTRIBUTE_METADATA
MODULE_METADATA_ID (fk)
TABLE_METADATA_ID (fk)
ATTRIBUTE_NAME
ATTRIBUTE_LOGICAL_NAME

CODE_LOOKUP_DOMAIN
MODULE_METADATA_ID
CODE_LOOKUP_NAME
CODE_LOOKUP_LOGICAL_NAME
CODE_LOOKUP_TYPE (d)

CODE_LOOKUP_CROSS_REF
ATTRIBUTE_METADATA_ID (fk)
CODE_LOOKUP_DOMAIN_ID (fk)

PODS_VERSION
RDBMS_PLATFORM (d)
PODS_VERSION_NUMBER (d)
IS_ESRI_GEODATABASE (d)

BUSINESS_RULE
RULE_XML
PODS_CERTIFICATION (d)

UNIT_OF_MEASURE
UNIT_OF_MEASURE (d)

TABLE_RULE_CROSS_REF
TABLE_METADATA_ID (fk)
LAYER_METADATA_ID (fk)
ATTRIBUTE_METADATA_ID (fk)
NEWTORK_ROUTE_ID (fk)
RULE_ID (fk)
UOM_ID (fk)
PRECENDENCE_RANK

DOCUMENT_CROSS_REF

ENG/CM NETWORK

CODE_LOOKUP_VALUE
CODE_LOOKUP_DOMAIN_ID
CODE_NAME
CODE_DESCRIPTION
CODE_STATUS (d)
CODE_STATUS_NOTES
CODE_SUPERSEDES_RFX

REFERENCE_MODE
NETWORK_ID
REFMODE_BASIS (d)
REFMODE_TYPE (d)
REFMODE_UNITS (d)
IS_PRM (d)
PARENT_REFMODE_RFX
START_MEASURE

Inline Inspection (ILI)

AbF

PIPELINE_FEATURE — ILI POINT OR POLYLINE — ENG & CM NETWORK, PIPELINE

NETWORK_POINT

ILI_DATA
ANOM_POF_CLASSIFICATION (d)
ANOMALY_DEPTH_PCT
ANOMALY_DEPTH_IN
ANOMALY_LENGTH
ANOMALY_ORIENTATION
ANOMALY_PIPE_LOCATION
ANOMALY_WIDTH
B31G_EFFECTIVE_AREA_PBURST
B31G_EFFECTIVE_AREA_PSAFE
B31G_EFFECTIVE_AREA_RPR
B31G_PBURST
B31G_RPR
BEND_ANGLE
BEND_DEFLECTION
BEND_RADIUS
CLUSTER_NUMBER
DENT_LOCATION
DISTANCE_TO_DS_GW
DISTANCE_TO_DS_MARKER
DISTANCE_TO_US_GW
DISTANCE_TO_US_MARKER
DS_GIRTH_WELD_IDENTIFIER
DS_MARKER_IDENTIFIER
DS_MARKER_STATION
FEATURE_TYPE (d)
FEATURE_TYPE_DESCRIPTION
ILI_INSPECTION_ID (fk)
INSPECTION_RANGE_ID (fk)
INSPECTION_RUN_ID (fk)
INTERNAL_EXTERNAL (d)
JOINT_LENGTH
JOINT_NUMBER
LONG_SEAM_ORIENTATION
LONG_SEAM_TYPE
METAL_LOSS_DEPTH_PERCENT
MODB31G_RPR
MOP_MAOP_PROVIDED
NEAREST_FEATURE_TYPE
NOMINAL_DIAMETER_PROVIDED
NOMINAL_WT_PROVIDED
ODOMETER
PERCENT_OF_OD_RESTRICTION
POINT_X
POINT_Y
POINT_Z
SMYS_PROVIDED
TOOL_DEPTH_TOLERANCE_PCT
TOOL_LENGTH_TOLERANCE_INCH
TOOL_SPEED
TOOL_TYPE (d)
US_GIRTH_WELD_NUMBER
US_MARKER_IDENTIFICATION
US_MARKER_STATION
VENDOR_JOINT_NUMBER
WALL_THICKNESS_MEASURED

NETWORK_POLYLINE

ILI_INSPECTION
ASSESSMENT_RANGE_ID (fk)
CLUSTER_RULE (d)
END_ODOMETER
ILI_VENDOR (d)
INSPECTION_BEGIN_DATE
INSPECTION_DESCRIPTION
INSPECTION_END_DATE
IS_ILI_DATA_ARCHIVED_YN
RUN_DIRECTION (d)
SOURCE_FILE
START_ODOMETER
TOOL_TOLERANCE
TOOL_TYPE
VENDOR_PROJECT_NUMBER

INSPECTION RANGE

ILI contain Inline Inspection information from ILI tools and inspections.

The Inspection is related to the Inspection Range through the INSPECTION_LOCATION_CROSS_REF table in the "Conditions" section.

This diagram depicts 7.0.2 release. More detailed information about each object in the model can be found in the official PODS 7 documentation with the releases.