QAQC Python Scripts

Script	Description	Data	SpecificChecks
MileageAnnoQC_InMemory.py	Verifies that the mileage annotation is consistent with AOTMILES in rdsmall	Anno_Mileage_31680 Anno_Mileage_6000_UC_Village rdsmall_arc	For each route (unique combination of CTUA, AOTCLASS group, and RTNUMBER), determines the sum of the AOTMILES from the rdsmall arcs, and also sums the annotation carrying the same FAID values as the summed rdsmall arcs.
Compare_AOTMILES_ARCMILES.py	Determines the absolute and percent difference between AOTMILES and ARCMILES for every AOTMILES <> 0 arc	rdsmall_arc	
Compare_LRS_XY_Loc.py	Compares the XY location of points in a feature class with the dynseg'd locations of those same features, based on LRS info provided in the feature class, populates a field indicating the Euclidean distance between the locations	lrs_route_twn Structures_LRS_XY	
rdsmall_QAQC.py	Looks for issues related internal consistency and following rules outlined in rdsmall manual	rdsmall_arc	
rdsmall_THDATA_RDSINDEX_QAQC.py	Compares total mileage by AOTCLASS category and Municipality	rdsmall_arc mileage.accd\THDATA RMC_V2_RDSINDEX_TABLE	
rtlogptsQC.py	Finds rtlogpts that do not snap to road centerline endpoints, checks whether NodeID is correct, unique point ID, and that points with same XY location have the same LRS route and measure, except for loop routes at loop Nodes (where measures are defined in Python dictionaries)	rtlogpts Nodes	- rtlogpts with FAID not in rdsmall - rtlogpts with duplicate POINTID - Missmatches between rtlogpts attributes and rdsmall attributes (FAID, RDFLNAME, RDNAME, RTNAME, RTNUMBER, HWYSIGN, AOTCLASS, NodeID) - rtlogpts snapped to rdsmall endpoints (except mileposts, bridges, etc)
Shields_QAQC_InMemory.py	This script identifies shields whose attributes are not consistent with a single rdsmall arc (FAID, AOTCLASS, CTCODE, UACODE, RTNUMBER), and identifies combinations of rdsmall attributes that are not represented by a highway shield.	hms_shield_points rdsmall_arc	- Identifies shields with FAID values that do not currently exist in rdsmall - Determines whether there are duplicate FAID values in rdsmall or shields_points - Compares number of shields afiliated with each "route" (unique combo of CTUA, AOTCLASS Group, and RTNUMBER)
RDFLNAME_PRIMARYNAME_QAQC.py	This script identifies, for each town, values of RDFLNAME from rdsmall that do not exist as values of PRIMARYNAME in E_RDS	rdsmall_arc Emergency_RDS_line	

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IntersectionData_QAQC_SDE.py	This script contains many snippets that conduct QAQC on the following datasets, checking for valid values and relational consistencies relevant to intersections. (rdsmall and rtlogpts have their own full QAQC Scripts) It then prints out definition queries that can be copied and pasted into ArcMap for selecting features/attributes with "issues"	Nodes NodeLegs rdsmall_arc	
Intersections_rdsmallPrepNew.py	This script processes a copy of rdsmall in preparation for creating a new set of Node and NodeLeg features "from scratch". It calculates coordinates of two end vertices at both ends and calculates their compass angle, and keeps track of which correspond to the start and end of rdsmall features.	rdsmall_arc	
Intersection_Nodes_from_rdsmall.py	Cleanest version of re-creating Nodes from scratch, primarially for QAQC purposes to verify completeness of Nodes and NodeLegs, and NodeLegCount.	rdsmall_arc	
NodesToRtlogpts.py	This script generates "valid" rtlogps by leveraging the rtlogpt-Node-NodeLeg spatial relationships and their attributes.	Nodes NodeLegs rdsmall_arc	
Intersections_rdsmall_Angles.py	Contains a function that adds fields (StartAzimuth and EndAzimuth) to a copy of rdsmall, and populates them with the values indicating the direction of the vector described from the vertex at either end of the arc (intersecting a Node) to the next vertex along (or back along) the arc (rdsmall or NodeLegs). These values correspond to the field CompassAngle in NodeLegs, depending on whether leg is a Start or End leg. Works with rdsmall or NodeLegs, and populates each Nodes' NodeLegID_A fields	Nodes NodeLegs rdsmall_arc	

Intersections_RPC_Review.py	Creates Python dictionaries representing Default and RPC_Edit versions of GDB_HMS's rdsmall_arc, compares them, and prints output indicating differences. Focuses on particular fields that warrant special handling (e.g. surface types and OneWay info that can be used to update rdsmall), and on identifying any pre-existing values that were updated by RPC editors (as opposed to just populating Null values)	Nodes NodeLegs rdsmall_arc	