

DPH-9.2 Data Quality Measure (DQM) Report on Overlap Consistency - Results by File

This section reports on an additional test not currently listed in the NGP USGS LBS v 2.1. The reason for its inclusion is to prepare for expected future integration of the USGS/ASPRS led development of interswath Data Quality Measures (DQM) and introduce the usage of DQM testing to the lidar community.

DQM analysis and reporting is intended to quantify the relative horizontal and vertical errors observed between conjugate features in the overlapping regions of lidar data.

Much more information on DQM can be found in the links below:

- General documentation: https://www.asprs.org/wp-content/uploads/LidarInterswath_CleanCopyASPRSV2.pdf

- Equations: <https://edcftp.cr.usgs.gov/project/rst/DQM/DQMDocumentation.docx>

- Operational Testing: https://edcftp.cr.usgs.gov/project/rst/DQM/DQM_Operational_Testing%202017-2-7.pptx

- Executable: <https://edcftp.cr.usgs.gov/?dir=project/rst/DQM>

Data Source - Y:\Mapping\Projects\65220595_CO_SanLuisJuanMiguel\Production\Final_Client_Deliverables\Block1_Surdex\point_cloud\tilecls

DQM File (Swath_Swath_Tile)	Number Sample Points	mean_dZ	Std_dZ	RMSE_dZ	Max D_HS	Num_HS	dX	dY	dXY
testDQM_0000021_0000196_13.txt	596	-0.0440480778137584	0.025204726137136	0.050749496339717	0.0212211717147239	10	0.106416020228964	-0.0372939188126817	0.112761721083789
testDQM_0000075_0000189_13.txt	394	-0.0371051395035533	0.0239829845319466	0.044181160290759	0.0137645665939609	14	0.137184239234961	-0.0102219797968401	0.137564546179029
testDQM_0000158_0000164_13.txt	193	-0.0325222451554404	0.0280837495697255	0.0429696802390433	0.0124602270721085	15	-0.0342899382788007	0.17009926627149	0.173521065733424