

start with cmspeed 2022 trinity centerline (got from github repo for 2024 paper, "Scenes acquired during low-discharge conditions were selected to minimize stage-based variability in centreline positioning between successive scenes and to obtain centrelines that are as close as possible to the channel thalweg.")

- points along line (100 m spacing, offset 60 m from start to avoid intersecting super curved areas of the banks where floodplain channels are)
- points to path
- transects every 100 m (200 m wide, 90 deg to line, both sides)
- buffer transects 0.5 m (total 1 m wide)

load segmented bank point clouds (qgis makes them into laz cloud optimized point clouds)

- clip with buffered transects
- export to csv
- load as delimited text
- join with transects to label with transect index

to do:

- decide how to get distance from start of transect (could join with transect line instead of buffer polygon to get lateral distance and join with points along line to get dist from centerline)

questions!

ok with this centerline?

thoughts on 100m? (32 transects) should I go to 50 m? Cole actually uses 25 m spacing for curvature calc in his paper, as does Zoltan in 2019 paper. I could do that too. will need to manually clean the data a bit though to remove the floodplain channels because i will intersect some of them. or maybe not, if the channels are present in both then they will affect the mean bank positions at t1 and t2 equally? also could do curv calc at 25 m and transects at 50/100

is it ok that the transects are not always normal to the bank edge? could rotate manually, but not for 34 * 4 if we go to 25 m. main errors are near stars

