

MicroStation Data Acquisition Tools for CTDOT

Table of Contents

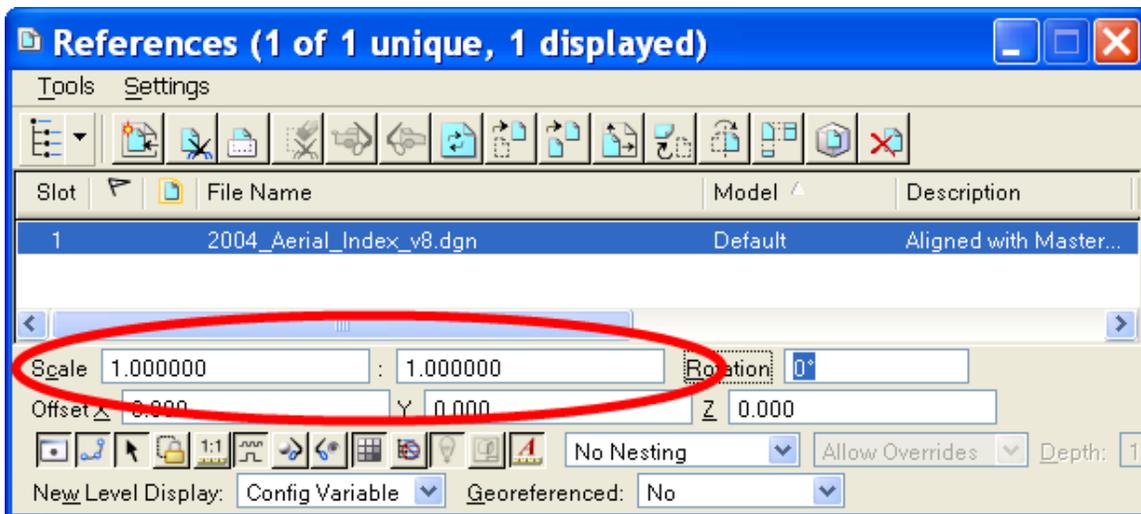
MICROSTATION DATA ACQUISITION TOOLS FOR CTDOT	1
SECTION 1 <i>LIDAR DATA TO DTM</i>	3
1.1 Locate and Copy Text Files	3
1.2 Extract Points	4
1.3 Merge Surfaces	8
1.4 Create a DTM Surface	10

Section 1 *LiDAR Data to DTM*

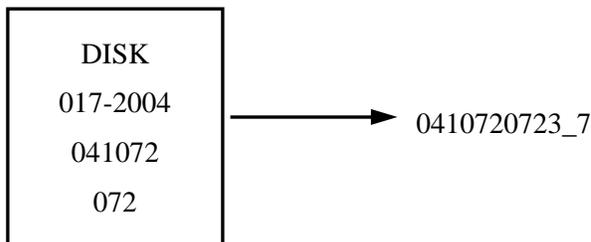
Disclaimer Note: The LiDAR text files located in the GIS_Data folder was compiled over 10 years ago and might not reflect the current conditions. This data should **NOT** be used to develop the final Contract Design Plans unless field verified by CTDOT Survey Operations.

1.1 Locate and Copy Text Files

1. Create a folder on your local drive called LiDAR.
2. Create a new MicroStation 3D file save it to the folder created in step 1.
3. Reference the Survey Ground File or the Design DGN
4. Reference the NAD 83 Aerial Photo Index file.
L:\GIS_Data\Imagery\Aerial_Photos\YR2004\INDEX\DGN_INDEX\
2004_Aerial_Index_v8.dgn
5. Scale the reference file so it is 1:1.



6. Determine the needed SIDs and write down the corresponding numbers.



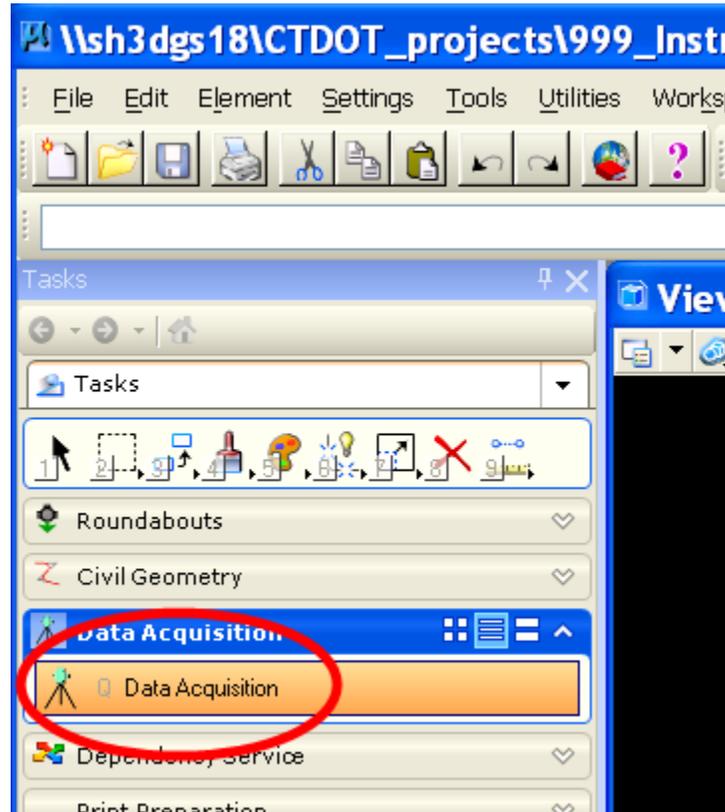
7. In Window Explorer browse to L:\GIS_Data\LiDAR\YR2004\05_FT. Click on the Search Button and enter your search criteria, example *0410720723_7*

Note: The current Lidar ASCII files are based on N.A.U.D of 1988

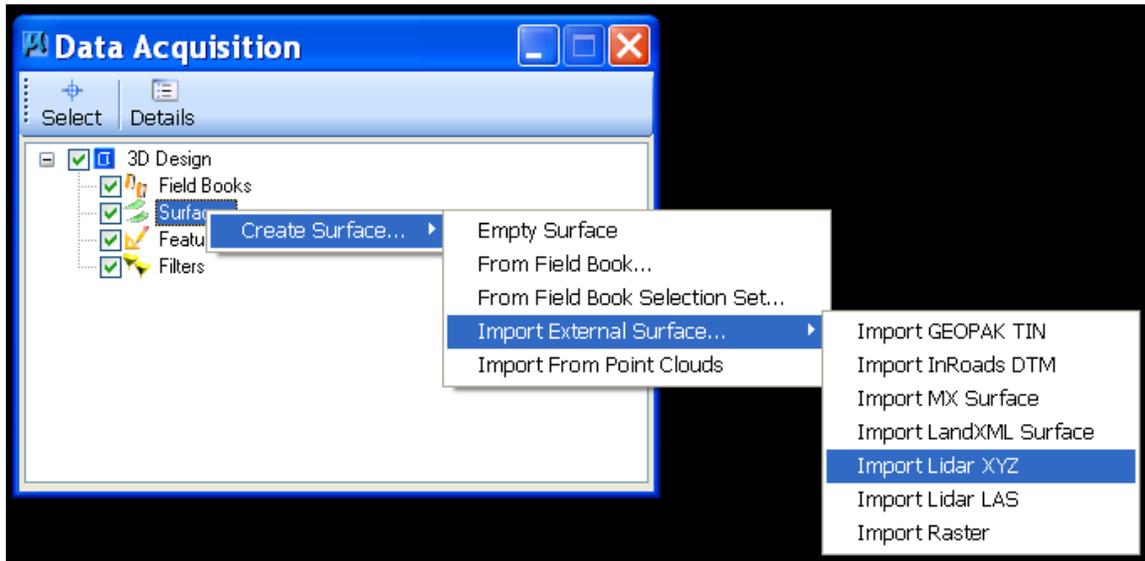
8. Copy each text file to your local LiDAR folder.
9. In Windows Explorer change all the TXT extensions in the LiDAR folder to XYZ

1.2 Extract Points

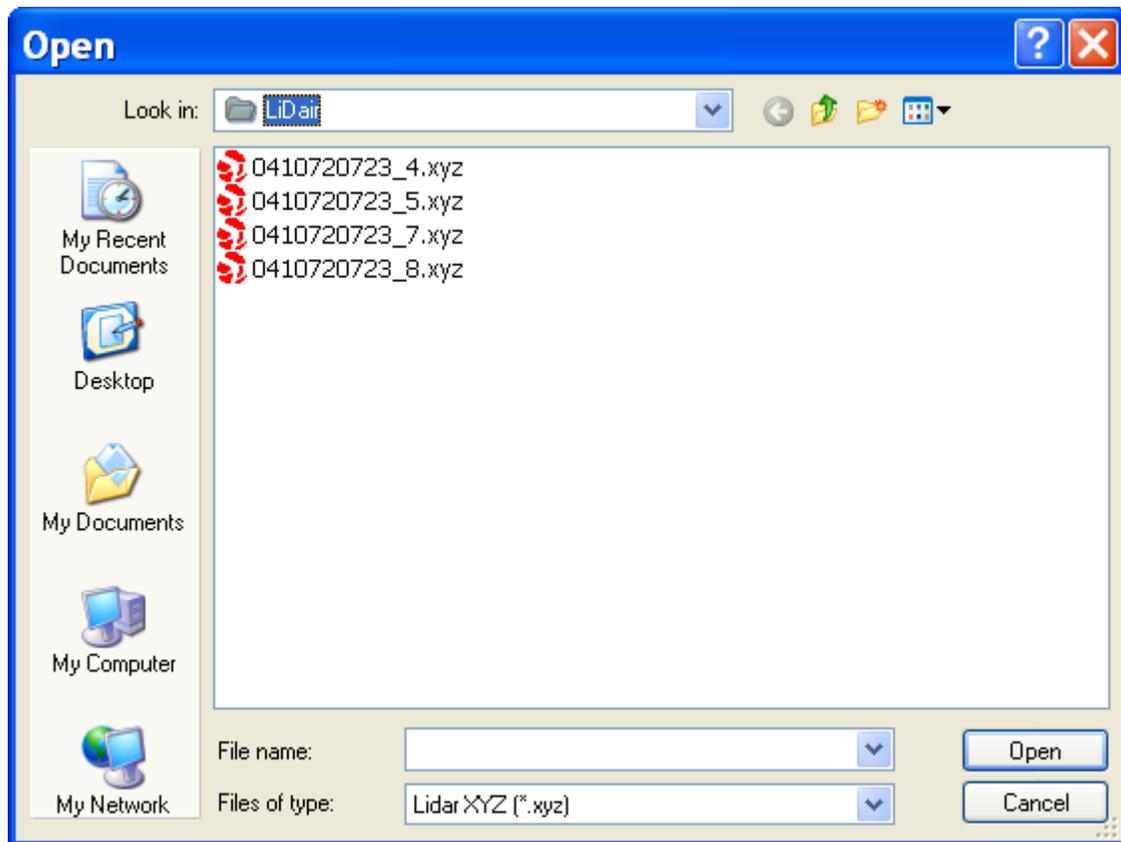
1. In MicroStation draw a shape for the area you would like surface information.
2. In MicroStation select the Data Acquisition tool.



3. The Dialog box below will open. Right click over **Surfaces** and select as shown below.



4. Browse to your LiDAR folder, select the first file and select **Open**.



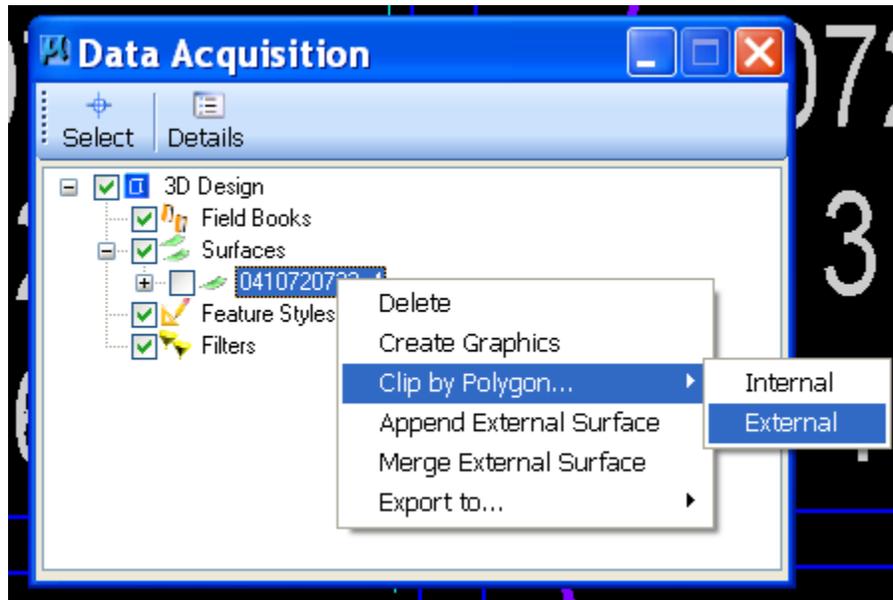
5. Select No Filter and click on the Accept button.



6. In MicroStation select **Element Info** and select the shape that was placed in step 10.



7. In the Data Acquisition dialog box right click over the surface that was just created and select as shown below.

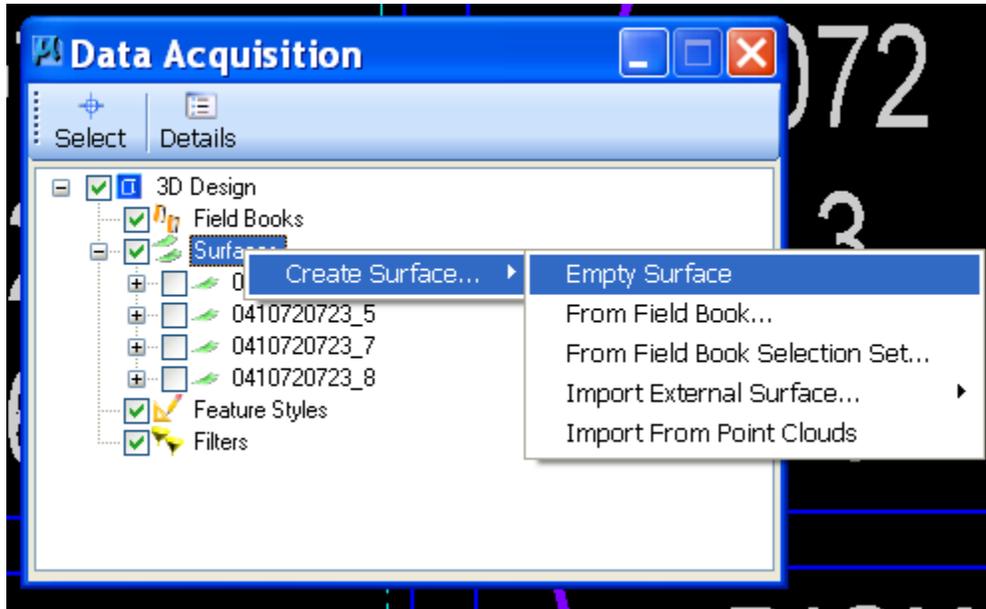


8. Repeat steps 11 through 16 for each XYZ file.

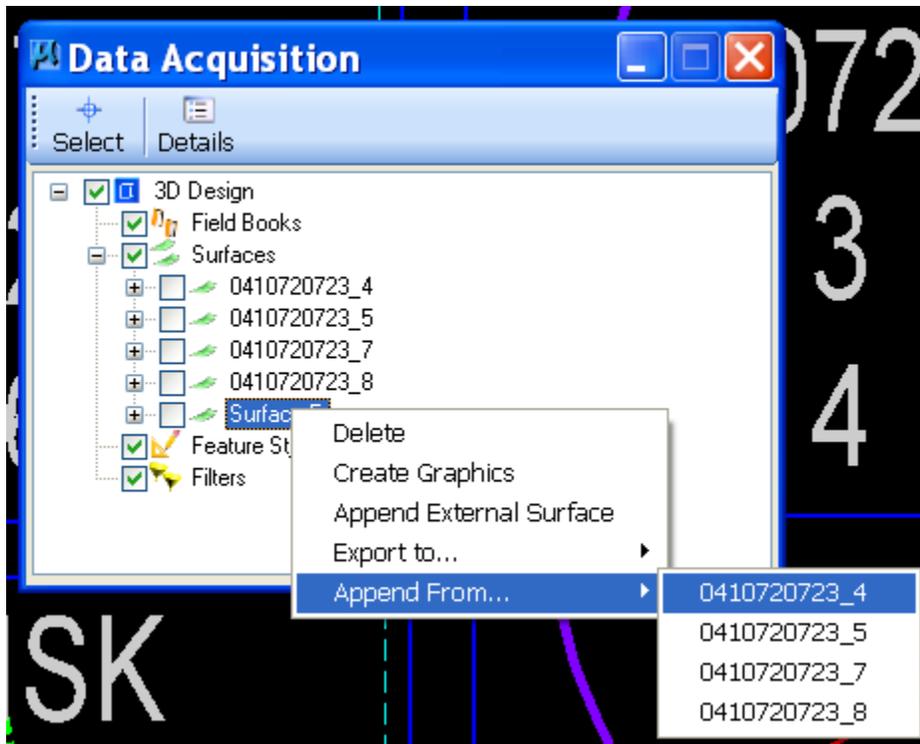
Note: Do not attempt to bring in all four text files at once without clipping as shown above, the text file are too big for the MicroStation file to handle.

1.3 Merge Surfaces

1. After all the files are brought in and clipped they will need to be merged. Right Click over Surfaces and select as shown below.

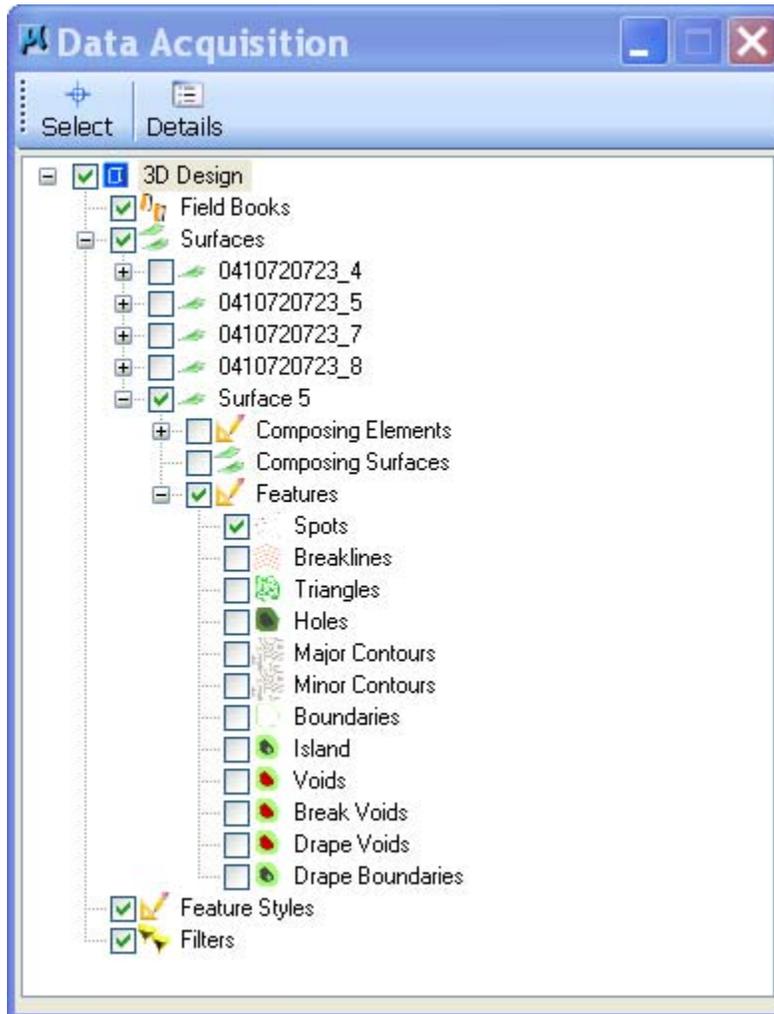


2. Right click on the Empty surface and select as shown below.



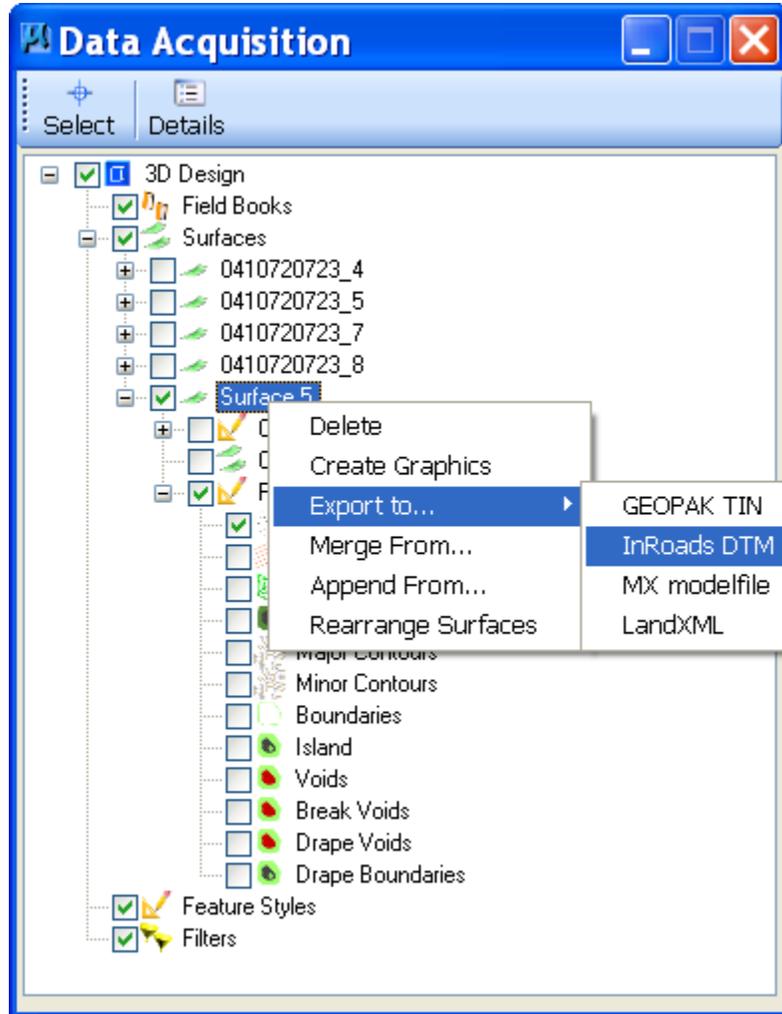
3. Repeat for each surface in the Append From list.

4. Click on the Plus sign for the merged surface, select Features and toggle on Spots.

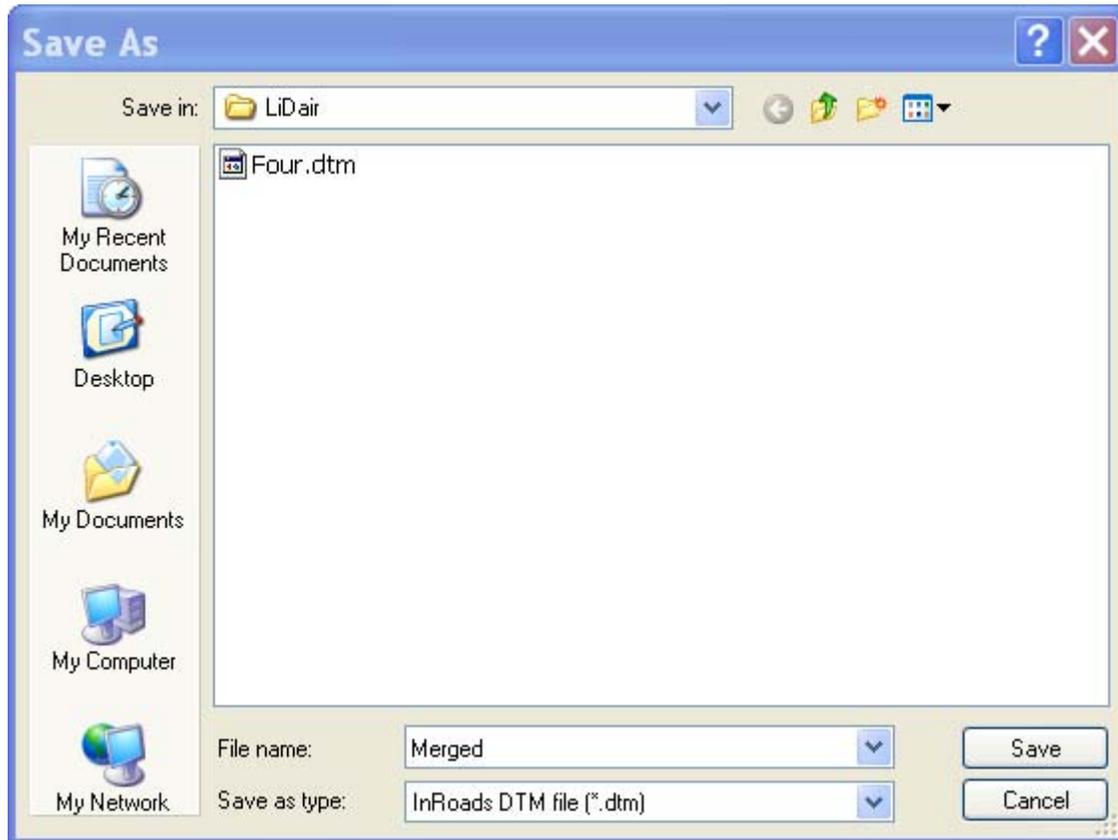


1.4 Create a DTM Surface

1. Right click on the merged surface and select as shown below.



2. Browse to your LiDAR folder and Save your DTM.



3. In Windows explorer move the DTM from the LiDAR folder to your Project Folder on the Network.