

SICCM Process: Scarp Identification (SI) Fully Automated and Semi-Automated Modes*

(A) SETUP

Create and Map to Project Folder

Tool # 1 Create Inventory Mapping Project

Tool # 2 Prepare Visualization Layers

Running Tools 1 & 2 are essential to the success of the model

(B) BASE DATA PROCESSING

Tool # 3 Find Cell Size for Mapping

Optional Modification 1 Define New Cell Size

Optional modifications are stopping points where the modeler may review the entire study area and make minor changes to numerical thresholds or the size of objects being mapped before moving to the next process

Determine Cell Size

Tool # 4 Create Mixture Raster

(Mixture Raster)

Optional Modification 2 Define New Threshold

Determine Threshold

Tool # 5 Create Scarp Polygon Candidates

(Candidate Polygons)

(D) IDENTIFY NON SCARP FEATURES (OPTIONAL)

While part D is optional, continuing without at least a stream channel layer will most likely lead to poor results

Tool # 6 Digitize Stream Channels (optional)

Optional Modification 3 Vary Stream Accumulation Area

Tool # 7 Create Rock Score Raster (optional)

Tool # 8 Identify Rocks from Rock Score Raster

(E) IDENTIFY SCARP POLYGONS FROM CANDIDATES

Tool # 9 Eliminate Non Scarp Topography

Optional Modification 4 Manually Change Incorrect Classes

(Outputs = Scarp Polygons)

(F) CREATE SCARP LINES

Tool # 10 Create Scarp Lines from Scarp Polygons

Thin Cell Size Thin Scarp Polygons into Lines

(Scarp Polygons)

(G) PREPARE SCARP LINES AND RUN CCM

Tool # 11 Create CCM Package

(CCM_scarps.shp)
(CCM_DEM.tif)

The CCM Package is a folder used to organize any number of Contour Connection Method outputs produced for a single set of scarp lines

*The Manual mode of Scarp Identification is not shown here; Manual mode scarps feed directly into CCM at Tool 11

Tool # 12 Run CCM