Content of animations in workflow order:

1_Import_raw_laser.mp4 /*TerraScan*

- Coordinate settings and the transformations (from WGS84 to local co-ordinate system)
- Import trajectories
- Draw trajectories
- Read-in every (10^{th}) point to see the coverage and find the largest building. If you have several echoes, use only '*last of many*' returns. Read-in them to class default. By reading-in filter out other echoes from many to '*low vegetation*' class (not seen here)
- Measure point density and estimate block size, 2 GB RAM if 5 million points per block - 4 GB RAM 10 if million points per block
- Place project blocks
- Cut or split turnarounds from trajectories, trajectory can not passes itself in TerraScan
- Create a project and save it immediately
  - Import points into project
- Possible geoid adjustment for laser points and trajectories (not seen here)
- Deduce line numbers for laser points

2_Data_calibration.mp4 */TerraMatch + TerraScan*

- Classify ground points per flight line + low points and points below surface
- Create a project for matching purposes, select blocks where slopes on different direction or hilly areas. Quick-orhos would help.
- Measure match
- Find match for heading, roll, pitch and mirror scale corrections. Solve these for whole data set
- Save corrections and report
- Apply corrections for entire project
- Measure match again for match project
- Find match for z correction. Solve this for individual flight lines and use entire project
- Save corrections and report
- Apply corrections if big DZ differences
- Find fluctuations for entire project, apply corrections
- Measure match for entire project
- Cut overlapping points to produce a more uniform data density and point pattern. By quality for crossing flights first. By offset (reserves points, which are most vertical from their flight line)

3_Automated_point_classification.mp4 */TerraScan + TerraModeler*

- Use TerraSlave to continue interactive work in MicroStation and to get maximum RAM and CPU capacity by processing data in several computers
- Evaluate new macros always by some active block before final macro execution!
- Classify ground points to default class by macro
- Classify final ground by macro
- Classify vegetation by macro
- Classify buildings by macro
- Classify isolated points
- Classify preliminary Model-Key-Points for 'quick-orthos', We need them for interactive ground classification

4_Manual_point_classification.mp4 */TerraScan, TerraModeler and TerraPhoto*

- Control and complement classification manually. For this
  - Create 'quick-orthos' to support classification
  - Display shaded surface
  - Use section views and reclassify ground where automated classification not perfect
- Output Model-Key-Points by macro
  - Smoothen ground
  - Classify final Model-Key-Points
  - Output results to separate location without saving results

5_Mission_definition_Quick_orthos.mp4 */TerraScan, and TerraPhoto*
(this animation is also in 4_Manual_point_classification)

- Define mission
- Read-in Model-key points
- Check image coverage
- Delete excess images
- Create quick-orthos

6_Aerial_triangulation_images.mp4 */TerraPhoto*

- Import trajectories for images, do not thin positions (done, if 'quick orthos' done)
- Possible geoid adjustment for trajectories (missing)
- Create mission (done, if 'quick orthos' done)
- Compute image list (done, if 'quick orthos' done)
- If large raw images (> 35 MB), tile images to smaller pieces
- Generate thumbnails for raw images
- Define colour corrections to balance large colour differences. Use Define colour corrections for viewing and applying corrections
- Search tie points to get best positioning for image list and save list in camera view and define DXY transformations to shifting images fit to ground control points
- Compare location of ground control points and images in camera view
- Move images by control points
- Compare location of building points and images in camera view.
- Display laser points by intensity and use camera view for define xy-differences
- Transform laser points by defined xy
- Output control report to verify overall elevation difference of ground points TIN to a good number of control points
- Define Dz transformation
- Lower or lift point's elevation according to Dz.
- Compare details to known points
- Adjust image positions and save adjusted image list as different name
- Vectorize buildings + bridges if aiming for true-ortho (missing)

7_Image_laser_positioning_by_ground_control.mp4 */TerraScan, TerraModeler, TerraPhoto, (TerraSurvey)*

(This animation is also in 6_Aerial_triangulation_images)

- Compare location of ground control points and images in camera view
- Move images by control points
- Compare location of building points and images in camera view.
- Display laser points by intensity and use camera view for define xy-differences
- Transform laser points by defined xy
- Output control report to verify overall elevation difference of ground points TIN to a good number of control points
- Define Dz transformation
- Lower or lift point's elevation according to Dz.
- Compare details to known points
- Adjust image positions and save adjusted image list as different name than initial imagelist.

8_Colour_correction.mp4 / TerraPhoto

- Colour corrections interactively in real-time
  - Search automatically color points
  - View orthomosaic and edit color points where needed
  - Search best seamlines automatically
  - Edit seamlines where needed
  - Place smearing polygons
- Place tiles for ortho mosaic
- Run rectification, be sure that available free space on hard disc is 10 GB for temporary files

9_Orthomosaic_production.mp4 */ TerraPhoto*

- Open mission
- Draw tiles
- Enter settings
- Run rectification
- View and render images