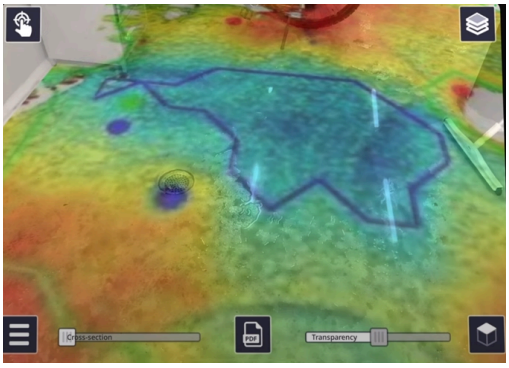
Standard Operating Procedure

BUILDING CONSTRUCTION FIELD SYSTEMS

May 2024

Scan Elevation Heatmap to Connect AR



Summary

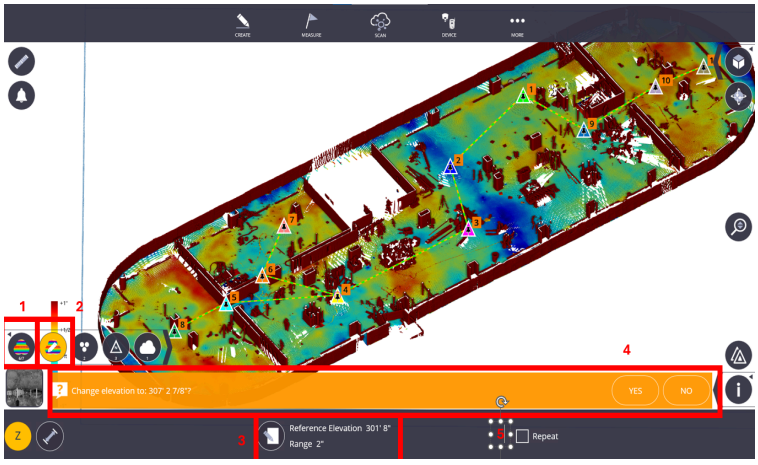
Communicating Scan elevation maps from the X7/9 Laser Scanners/FieldLink to others on the project can be accomplished easily and quickly through Connect. The images/elevation maps can then be overlaid with Connect AR or SiteVision (accurately if outdoors) with the PDF alignment tool.

This is a great way to do a qualitative analysis and share the high-accuracy scan data to others on the project. Allowing for layout of high/low areas to relative accuracy with a Tablet/Phone.

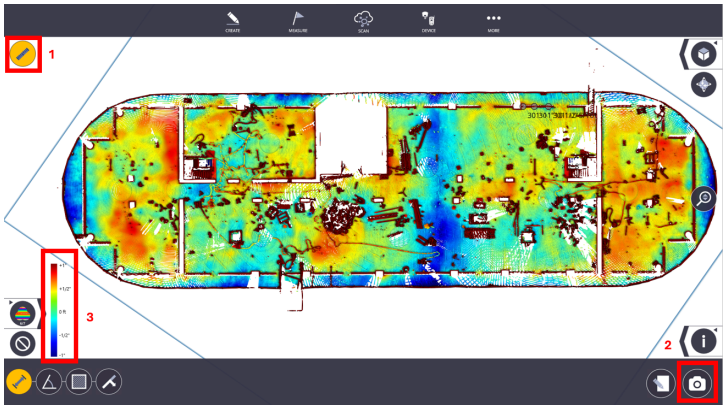
FieldLink

After scans have been collected, set elevation settings to show high/low areas before creating a heatmap image for Connect/AR/SiteVision.

1. Elevation Settings
   - 1.1. Go to “6/7” to access the elevation rendering.
   - 1.2. Expand ribbon to change the elevation settings
   - 1.3. If the the scans are to finish floor elevation, set the “reference elevation” to that
   - 1.4. or click on the medium level to better the high/low areas. A ribbon will appear showing the elevation selected.
   - 1.5. Turn Repeat off



2. Image creation
    2.1. The measure button allows for images to be created from FieldLink.
    2.2. The images can be saved to a folder or will save to the FieldLink Project folder under the “Image” folder.
    2.3. If the image is captured in the floor analysis, the elevation **scale bar will remain**. If done from the map screen, it will not.



3. Connect Transfer
    3.1. Images will not be pushed with a ‘Save As’ function but can be pushed through a web upload or Sync operation. For automated/faster uploads it is recommended to use the Connect Sync application.

Connect/AR/SiteVision

Once uploaded to Connect, images can be shown in a 2D viewer, as background in the web model viewer or overlaid onsite with Connect AR and SiteVision with the PDF application. Users can align the PDF/image to the site or to the model in AR/SiteVision. Accuracy of this alignment will depend on the alignment and may drift with AR. For SiteVision with RTX corrections accuracy would be stable to around 1”/2cm but also depends on alignment.

Resources

[BuildingPoint Scandinavia Connect AR floor flatness overlay]

[BP Scandinavia: Using 2D PDF Scanning Floor Flatness results in AR]

[Connect AR PDF/Image alignment]

[SiteVision PDF/Image placement]