Common Problems with Executing PhotoModeler Marine Deck Projects

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Contents

Introduction

This document discusses common problems that customers have executing their PhotoModeler boat deck measurement projects. Problems usually fall into one of two categories:

1. The results are not accurate enough (results do not fit), or
2. Some or all photos do not solve (red X on image chips) and can't be marked.

When getting started with PhotoModeler we recommend going through all introductory videos and resources on the [Learning Boat Deck Measurement](#) page.

One of the best pieces of advice we can give when you are new and starting out with PhotoModeler is to start slowly and take it step by step. Do not start your first project on a large boat with real deadlines and a real customer! Start with a small project or two in the office, then do a small section of a boat that is easily accessible. Work up from there. The PhotoModeler Support team is available at every stage.

Accuracy and Fit Problems

If the problem is in the accuracy or fit area also review this page on our site:

[Why My Deck Templates Measured in PhotoModeler Might Not Fit](#).

Common Problems

Here are the most common problems we see customers having with a summary of the fix. See below for more detail.

Problem	Potential Fixes
Not all photos solve (red X) -A photo chip with red X at the upper right means it did not orient or solve. The camera's location is not known.	-at least 10 targets per photo with good coverage -photos share at least 6 targets and share targets with a third photo (add photos to improve overlap) -blurry photos leading to targets not being identified -mix of photos from different boats -duplicate targets leading to targets not being identified† -see also this page on red X photos
Cannot mark on a photo -You see message "… points can only be created on oriented photos." -A photo cannot be marked on with a surface-based tool if it is not solved	-same as red X above
Cannot mark on a photo with no surfaces -You see message "No close by surfaces."	-Surface Draw and Outlines are marked on surfaces. If the project does not have any 3D surfaces defined, add some.
Outlines don't line up on other photos -On reviewing surface draw or outlines on other photos, they do not line up with real world correctly	-mostly likely due to the object being marked on a surface that does not match the true surface -study the surface being used to ensure it is correct one for that area, or further sub-divide into other surfaces
The output is not the correct size -When the outlines are measured or output, they do not match the real-world sizes (too small or too big)	-if using printed paper targets, they may be printed at the wrong size -project is inaccurate due to camera calibration issues (or using an iPhone or similar) -surface issues as described above -see also this page on fitting issues
Insufficient targets -A large boat may need more targets than the base Letter Sheet set	-the letter sheet targets, extended set, and the small rounds are 210 targets -if insufficient targets the project can be split and merged, or additional targets printed†

† Coded Target IDs must be unique in a project- if you are using additional targets printed from within PhotoModeler, it might be best to start at ID number 214, to be outside any ID number used in the Letter Sheet print files.

Video References for Common Solutions

If you are having trouble with your deck measurement project, a good place to start is to review these common tasks that are prone to error. Below, if you see n:nn after a topic, this is a time code - you can scroll the video to the correct place for that topic.

Also see a more extensive set of videos: [Marine Deck Tutorial Videos.](#)

Placing Targets and Taking Photos

The video: [Decking On-boat Work](#)

Video References:

- Placing Letter Sheet and Individual Targets: 0:47
- Taking photos and camera angles: 2:00
- Getting photos from camera to computer: 3:33

Keywords: Letter Sheets, target placement, photography, camera angles, image file management, transferring images to computer, target coverage, minimum number of targets.

Common Modeling Tools

The video: [Decking In-PhotoModeler Work](#)

Video References:

- Best Fit Plane
    - Best Fit Plane: 1:57
    - Negative offset for thickness: 2:30
- Surface Draw Curves, Tracing, Outlining
    - Surface Drawing: 2:52
    - Projections: 4:30
- Exporting
    - Export settings: 5:51

Keywords: Best fit plane, plane surface definition, surface plane offset, surface draw tips, exports, export settings, tracing, outlining, surface draw projections.

Common Modeling Tools- Outlines

The video: [2D and 3D Outlines and template tracing from Photos](#)

Video References:

- Outlines on surfaces 0:40
- Fillets 0:58, 6:33
- Splines 2:36, 10:53
- Circles 3:10
- Outline Properties 12:28

Keywords: outline, fillet, spline, circle, arc, associated surface.

Coded Target Presets

The video: [Coded Target Presets](#)

Video References:

- Setting up Coded Target Presets

Keywords: coded target presets, automated coordinate system setup, coded target offsets, applying presets, preset configuration, automated coordinate system setup, automated scales.

Surface Draw projection alignment issues

While this video uses Surface Draw, similar steps are used with Outlines.

The video: [Reassigning the Surface for Surface Draw](#)

Video References:

- Setting Surface Draw Properties

Keywords: Troubleshooting, associated surface, surface draw surface assignment, surface draw properties, projections, surface draw alignment.

Modeling Small Panels and/or non-standard shapes

The video: [Small Deck Panels](#)

Video References:

- Target placement tips: 0:15
- Manually marking and referencing points: 0:49

Keywords: target placement, small narrow deck panels, gunwales, narrow decks, manual point marking, manual referencing, point spread.

Modeling Sloped Deck Panels

The video: [Sloped Decks](#)

Video References:

- Export Settings 1:14
- Flattening results explained 1:43
- Exporting by Layer 3:19

Keywords: sloped angled decks, flattening, export settings

Improving Textured Deck Visibility

The video: [Continuing in PhotoModeler: Additional Details](#)

Video References:

- Using Image Enhance to improve decking surface visibility 8:56

Keywords: image enhance, deck texture visibility, trace pattern visibility

Improving Mark, Lines and Projection Visibility

The video: [Improving Visibility of Marks and 3D Projections on Photos](#)

Video References:

- Setting Preferences for point mark colors

Keywords: point mark color, projections color, visibility settings, preferences, colors