

# V-STARs 4.4 SR2 Release Notes

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## Introduction

The following release notes describe the significant new features that are available in V-STARS Version 4.4 SR2.

The release notes also describe many of the software fixes implemented since the previous release (V-STARS Version 4.4).

All care has been taken to ensure that the software is functional and operates as it should. This software has passed all internal testing. Although this testing is thorough, it is by no means complete. We cannot run through all the possible combinations and applications that our large and varied user base performs. We therefore urge you to try out the new features as much as possible in the next few weeks to confirm that they work properly. Please notify us as soon as possible of any problems you find so they can be fixed in the next formal release.

Throughout this guide **NOTE:** will be used to indicate particularly useful information. Additionally, **WARNING!** will be used to indicate when special attention should be paid to the information provided to avoid an undesirable result.

## Known Issues

### Opening or Importing Projects from CD-ROM or DVD

V-STARS 4.4 SR2 will not open projects stored on a CD-ROM or DVD. Additionally, no files stored on a CD-ROM or DVD can be imported into a V-STARS project. This is a Microsoft software problem and is not a problem with the V-STARS 4.4 SR2 software. The workaround for this issue is to simply copy the project or files from the CD-ROM or DVD to the computer hard drive and open or import from there. We will let you know if and when Microsoft fixes this problem.

## Important Changes

The following items are considered very important changes in V-STARS.

### Picture Thumbnail display updated

The thumbnail outline colors now match the icons on the project tree. This was done to improve the consistency between the thumbnails and project tree.

Green: Measured and resected  
Yellow: Measured but not resected  
Red: Disabled  
None: Unmeasured

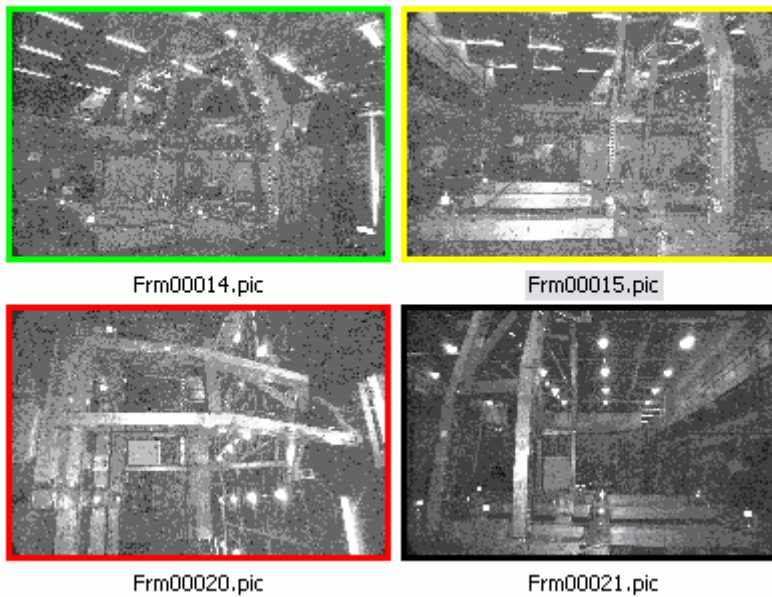


Figure 1 - Thumbnails

## Create Detail Codes check box added to M-Mode Setup

M-Mode Setup now has “Create Detail Codes” check box. When checked any triangulated coded targets (that are not in the driver file) are added to the detail file the first time the code is measured after the box is checked. This is useful when you want to see how far a code has moved from some starting or baseline condition. For backwards compatibility, the box is unchecked.

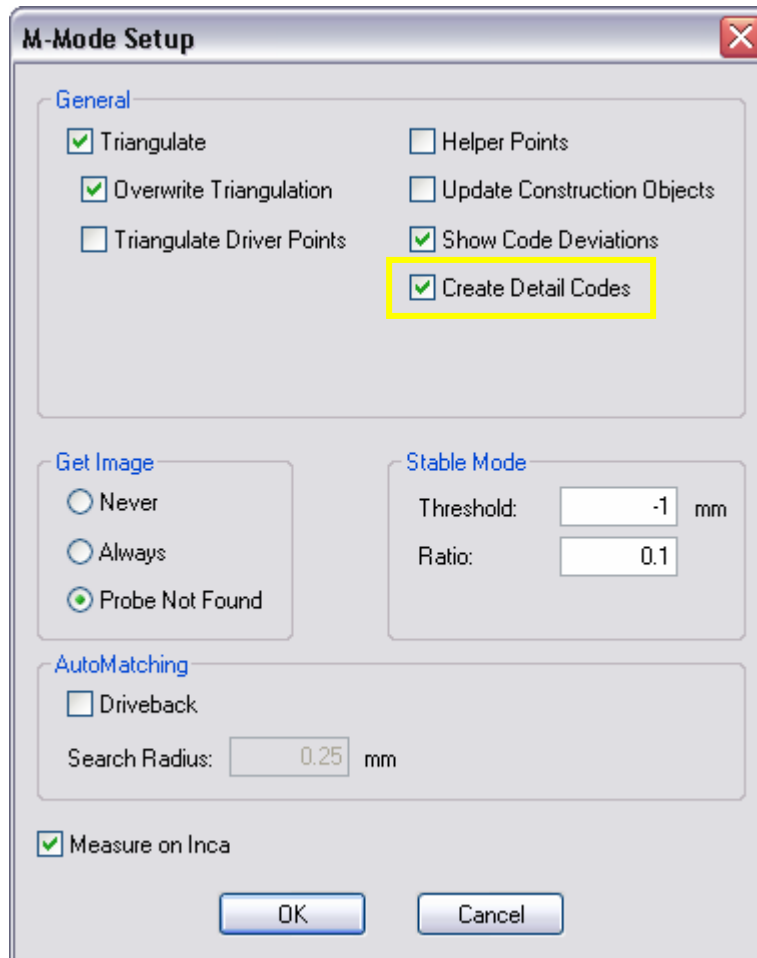


Figure 2 - Create Detail Points

## Enhancements

### Use Codes for Orientation menu item

The right click menu for the driver file now has a “Use Codes for Orientation” menu item. When selected, the coded targets in the driver file are used for orienting the picture. When unselected, the codes are only used for the initial driveback and are not used in the final orientation. For backwards compatibility, the option is selected.

This can be useful when the placement of coded targets is not exact but is good enough to allow other more permanent targets to be driven back to. The final camera location is then determined from the permanent targets and not influenced by the coded targets.

### Show Code Deviations check box in m-mode setup

When unchecked, the deviations for coded targets are not shown in the detail window or in the graphical view.

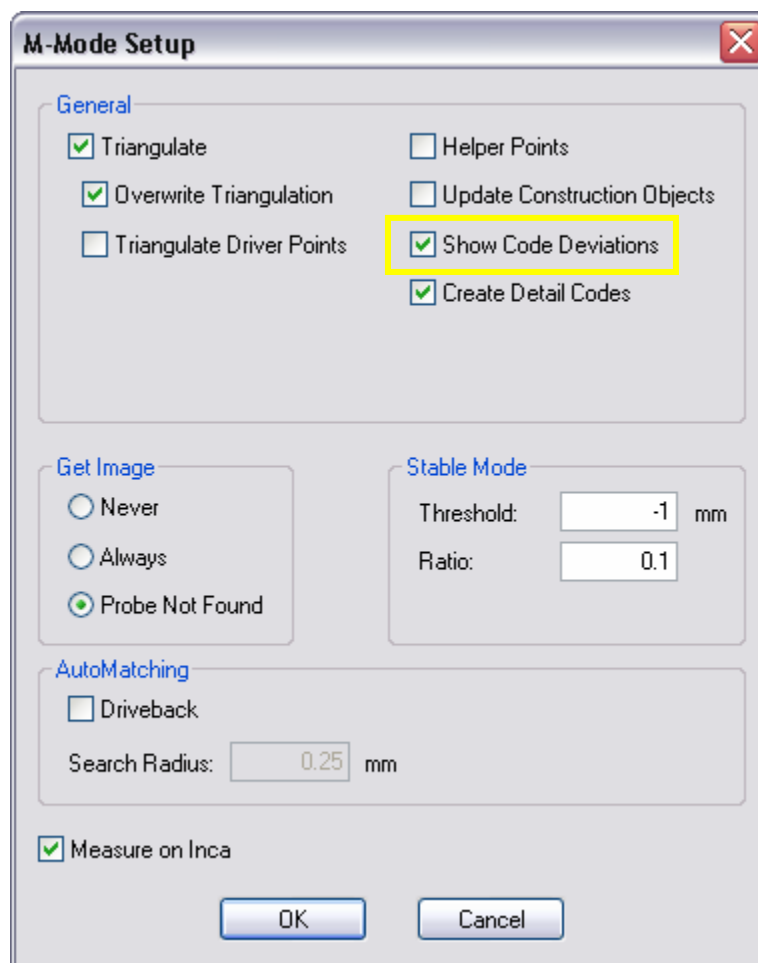


Figure 3 - Show Code Deviations



## Text color changes on project tree.

The color of the text on the project tree now changes to denote object status.

Green:	Measured and resected
Yellow:	Measured but not resected
Red:	Disabled
None:	Unmeasured

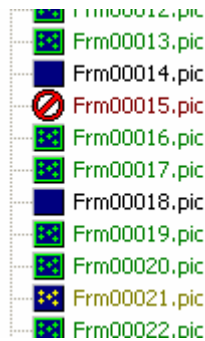


Figure 4 - Project Tree

## Better notification about running initial bundles

A message will be displayed if an Initial Bundle must be run. This is usually done when there is not sufficient roll diversity in the survey.

## Improved unstable procedure

The unstable camera orientation would sometimes be too strict in rejecting points.

## Save unstable camera orientation results

Unstable camera orientation results are now logged to a text file in the project directory. The file, called "Unstable Log.txt", is appended to after each unstable orientation.

## Show date and time for probe calibration

Date and time of the last probe calibration is now shown in Probe Information dialog.

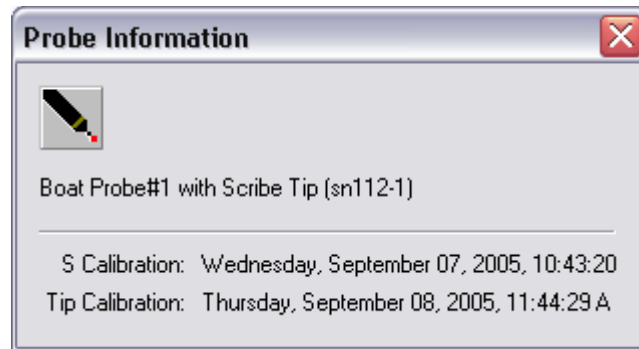


Figure 5 - Probe Calibration Time and Date

## Total number of points now in detail window

The total number of points that were successfully measured and the total RMS is now displayed in the detail window.

## Project created date now available

The date a project was created is now available to user in a dialog via File | Properties.

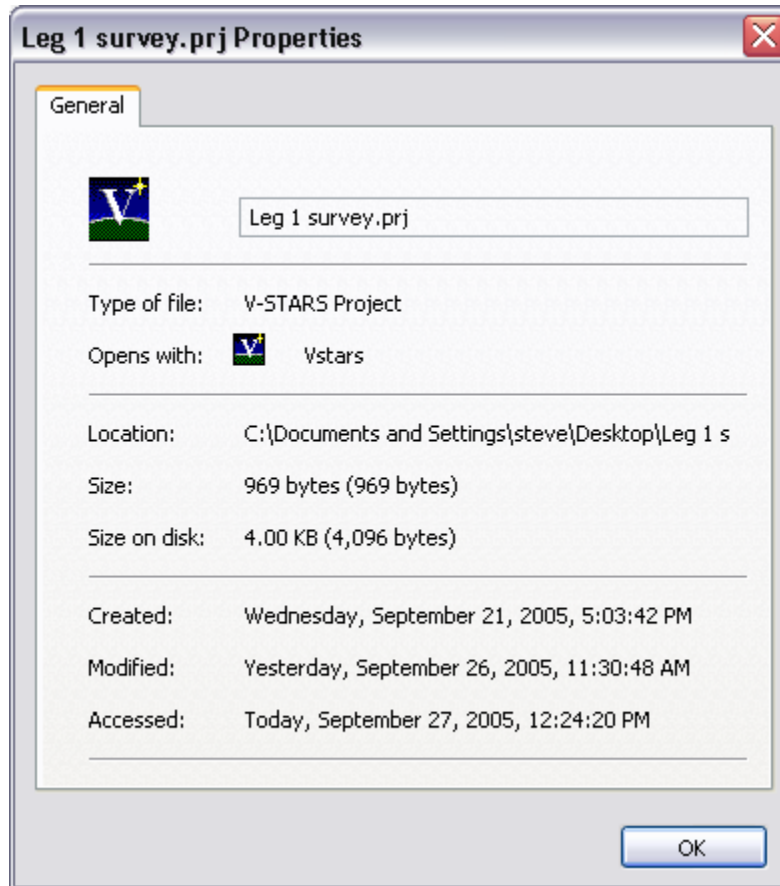


Figure 6 - Project Properties

## Automatic configuration of master/slave in wireless m-mode

The software will now automatically determine which INCA3 camera needs to be the master when using the wireless sync devices in m-mode.

## Precision on OUTRES.TXT file now user configurable

The GSI32.INI file now has an entry called "write outres decimals" under the [bundle general] section. Setting this will cause the OUTRES.TXT file to be written with the specified precision. For example "write outres decimals=2" gives two decimal places. The default value is one.

## Probing now default m-mode measurement type

By default, probing is the default m-mode measurement type. Previously the Probe button would have to be pressed in the measurement type toolbar.



Figure 7 - Probe Measurement Button

## New TCP/IP commands to return status of camera connection

- VSC:CAMERA CONNECTION STATUS
- VSR:CONNECTED
- VSR:NOT CONNECTED
- VSR:CONNECTING

## Displays RMS of point residuals in graphical view

By pressing Shift-T you can now display the differences between the measured and design point values.

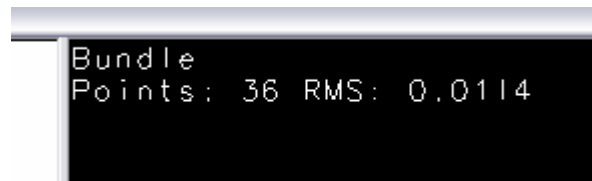


Figure 8 - Graphical View RMS

## Bug Fixes

The following bugs have been fixed in this release.

### Probe Import while in M-Mode

In some cases importing a probe while in M-Mode would cause V-STARS to crash.

### Can't do a plane to plane measurement from plane list

A plane to plane measurement was not possible by selecting two planes in the list view.

### Merge clouds using “delete dupes” corrupted input data files

The merge function would corrupt the input 3D files if “delete dupes” was selected.

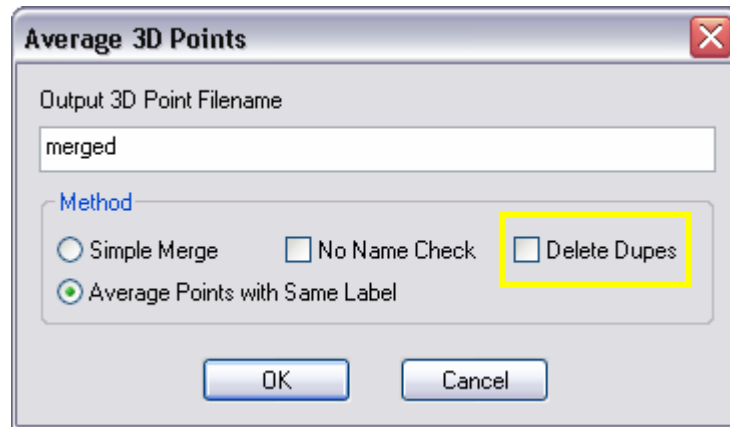


Figure 9 - Average 3D Points

## Plane offset direction in Best Fit Plane dialog returned to 4.3 behavior

A feature introduced in V-STARS 4.3 SR1 allowed you to enter an offset value in the best fit plane dialog (Figure 10 - Plane Parameters). A positive offset value would offset the plane in the opposite direction from the plane's positive normal (Figure 11 - V-STARS 4.3 SR1). With the release of V-STARS 4.4 the behavior of this command was reversed to match the Solids Offset command. A positive offset value would offset the plane in the same direction of the plane's positive normal (Figure 12 - V-STARS 4.4). This change affected the offset value from the best fit dialog and the offset value that was used in the plane offset construction templates.

With the release of V-STARS 4.4 SR2 we have reverted back to the behavior of 4.3 SR1. The 4.4 behavior can be enabled by setting the "invert plane offset" in the [solids] section of the windows GSI32.INI file to false.

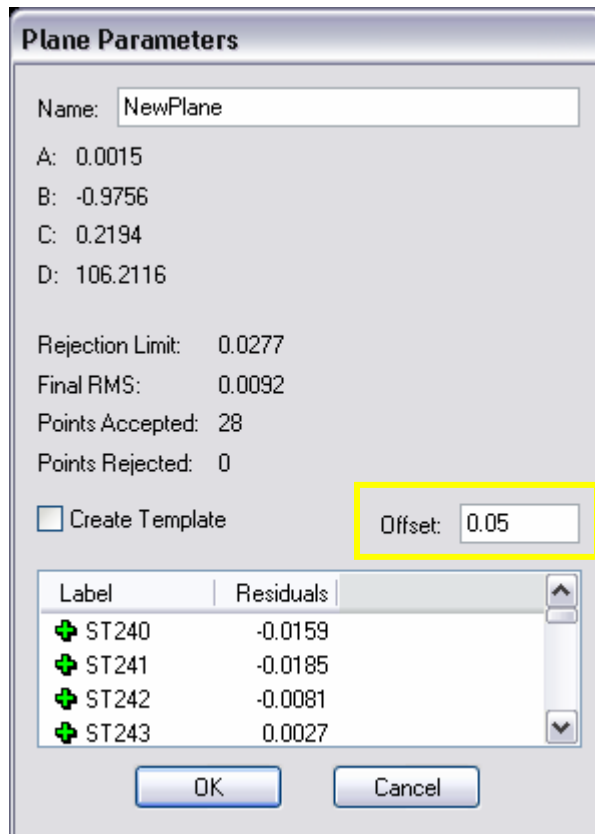


Figure 10 - Plane Parameters

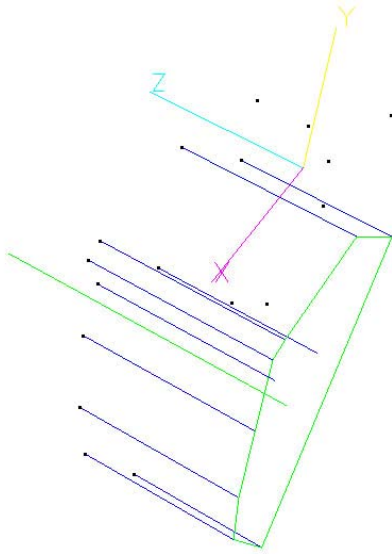


Figure 11 - V-STARS 4.3 SR1

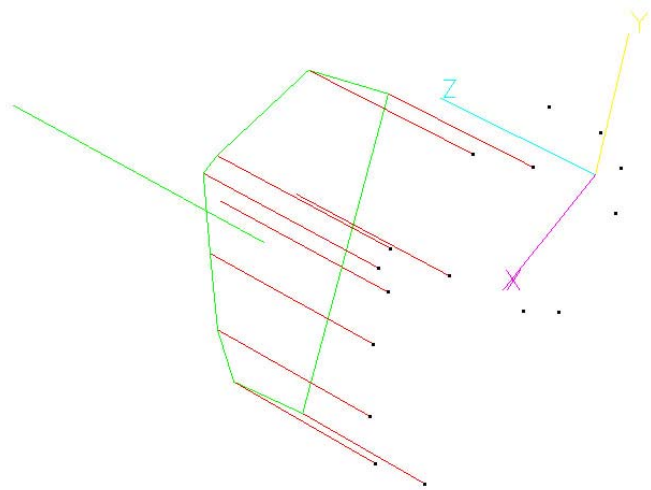


Figure 12 - V-STARS 4.4

## **Creating a scalebar from a point to point measurement uses wrong file extension**

Creating a scalebar from a point to point measurement would create a new scalebar with the old SBR file extension. It now correctly uses the SB4 extension.

## **Best fit cylinder sometimes had problems with millimeters**

Some tolerance checks would fail when a best fit was done on data in millimeters.

## **Thumbnail display bug fixed**

Thumbnail display limitations present in previous versions have been removed.